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THIRD REPORT ON THE EXCAVATIONS AT SAKJE-GEUZI, 1908-1911

By JOHN GARSTANG : W. J. PHYTHIAN-ADAMS :

V. SETON-WILLIAMS

WITH PLATES XX-XXXV

I. GENERAL SURVEY

THE discovery of prehistoric levels by the Neilson Expedition at Mersin (as described in the last number of the *Annals*), with the prospect of continuous excavation on that site, calls for a re-study of the pottery unearthed by the excavations of this Institute many years ago at Sakje-Geuzi, the nearest place where early prehistoric fabrics have hitherto been found. A systematic account of this pottery, deferred at the time for lack of comparative materials, has now been made possible by the brilliant discoveries of recent years, particularly, as it proves, the work of Mr. Mallowan at Arpachiyah, Chagar Bazar, Nineveh and other sites, by which the so-called 'Tell Halaf' and 'Samarra' styles have been assigned to their respective levels in a continuous sequence of development and inter-relation of formerly unknown cultures. Nearer still, the recent work of the Oriental Institute of Chicago at Judeideh and the results of Dr. Schaeffer's investigations in the deeper levels of Ras-Shamra have furnished further materials unsuspected at the time when our excavations and those of Baron von Oppenheim attracted the attention of archaeologists to the local indications of distinctive cultures far older than the early dynastic levels of Babylonia and of Egypt.

The excavations at Sakje-Geuzi were made in 1908 and 1911 and interim reports were published in the *Annals*, I, 1908, pp. 97 ff., and V, 1912, pp. 63 ff. As so much time has passed, it will be convenient to recapitulate the broad results.

Sakje-Geuzi lies in the extreme north of Syria, southward from Marash, at the divide between two streams making their way north and south, the former to join the Pyramus, the latter the Orontes, by the broad valley between the ranges of the Giaour Dag (Amanus) and the Kurt Dag. As seen from the sketch-map published in *Annals*, I, Pl. XXXIII, the

site was traversed by the main pack-road from Cilicia to the East, that which leads by the Bogche Pass and Aintab. Though now very marshy, the vicinity was occupied intensively at varying times in antiquity. No fewer than seven mounds mark the sites of ancient settlements, and in two of these, lettered A and B on that map, we made excavations.

The mound marked A, called locally Jobba Hüyük, was relatively small and low, and on this most of our work was concentrated. The main results were twofold. In the first season we discovered, and in the second completed the uncovering of, a Late Hittite palace enclosed by a buttressed stone wall. The plan now reproduced on Pl. XX (from the *Annals*, V, Pl. III) shows its principal features. The foundations of the palace were of stone and fairly complete; even the brickwork of the upper courses was preserved in various places. The portico, after the fashion of those days, was adorned with a dado of symbolical sculptures which were mostly preserved *in situ*. Traces of similar carvings were found in and near the main entrance of the enclosure. As an adequate account of these was given in *Annals*, I, with Pls. XXXVII-XLII, it is not necessary to consider them further, except for one supplementary observation.

The figure of the Priest King or chieftain found on the left-hand side of the entrance ¹ is apparently identical with the personage represented by a statue recently uncovered at Malatia by M. Delaporte. The great disparity between the size and nature of these two carvings makes it difficult to compare them, but photographs reproducing them about the same size show that the features and details of dress are identical. The significance of this point is apparent. Sakje-Geuzi at the period of this palace must have been subject to a ruler who dominated also Malatia. The domain thus indicated would include such important Late Hittite centres as Aintab, Marash, Derendeh and numerous other sites in the lower valley of the Tochma Su as well as the famous *hieron* of Comana. This grouping would seem to have preceded the full establishment of the Assyrian régime under Essarhaddon, when the kingdom of Sam'al, centred upon Sinjerli on the other side of the valley, was governed by its local king, Bar-Rekub. None the less, the similarity of influences in the later art and culture of Sakje-Geuzi and Sinjerli is apparent, and it is consistent with what is known of the development of Assyrian power in

1. The carving of this figure has special characteristics, as described by D. Vaughan in *Annals*, XXI, pp. 37 ff., with figs. 1-3.

the VIIIth and VIIth centuries B.C.¹ Pottery fragments from the palace area (Pl. XXXV) bear further witness to the same influence as the carvings.

The second main feature of the results obtained at Jobba Hüyük was the discovery, in a sounding trench (A on Pl. XX), of stratified layers representing prehistoric cultures underlying the Late Hittite deposits (cf. Pl. XXI). The lowest of these, containing hearths and round rooms, was apparently neolithic in character, combining chert, flint and obsidian implements with distinctive pottery fabrics, in particular black and grey burnished wares decorated with whitened incised lines (cf. Pl. XXIII, 1-4). The pottery was all hand-made, and the art of painting it was still in infancy. The stylized examples shown on Pl. XXIII, No. 13, etc., were presumably imported, as they differ from the standard fabrics of the site. Compared at the time by M. de Morgan with those of Susa II (*Annals*, I, p. 116) they are now known to be older even than Susa I, and to have a nearer relationship.

In the subsequent (chalcolithic) period painting on pottery developed greatly, so that two distinct phases of this art were recognised in the higher levels, called at the time the Early Painted and Later Painted respectively. With the earlier painted wares was associated a new style of decorating the local black and grey pottery by punctuation and excision rather than by incision; while in the later stages both these and other common local fabrics were quite superseded by the influx of new fabrics and styles of decoration, among which the rosette and stippled *motifs* attract attention.

Above the levels characterised by these three styles of pottery appeared black layers of vegetable mould and debris, which marked a period of non-occupation of the mound until in Late Hittite times it was crowned by the palace with its walled enclosure, and the slope outside the wall was reinforced with a lime revetment conspicuous in the diagram of each section (Pls. XXI and XXII).

The three main periods in our prehistoric pottery sequence are now found to correspond approximately with the three lowest levels of Nineveh and other sites. The Neolithic fabrics, though at Sakje-Geuzi distinctive in their *ensemble*, are represented in the bottommost levels at Judeideh and Chagar Bazar, while the Early Painted fabrics correspond

1. A scarab found in the palace area is ascribed by Prof. Newberry to the Saite period or later, in correction of our earlier impression that it should be assigned to the reign of Shabaka.

more nearly with the related cultures of Samarra and early Tell Halaf; and our Later Painted with the 'developed' wares of Tell Halaf, in the stratified series established by Mr. Mallowan's work at Arpachiyah and elsewhere, though our fabrics seem to resemble most closely those of Tell Halaf itself. As our plates will show, the striations in the soil of this cutting (in the lack of building levels) correspond reasonably well with this scheme of subdivision.

The obvious importance of these discoveries led us again in 1911 to attempt to gain more abundant and more precise information by making a second cutting near to the first. This work was supervised in detail by Dr. Phythian-Adams and Mr. Hamilton Beattie. As the Late Hittite level which almost covered the mound was in active excavation, the edge of the mound was again chosen for this experiment and a deep broad trench was cut methodically in half-metre cubes. Its position was just westward of trench A, and it ran almost directly outwards from the drain in the north wall, marked with an asterisk and Z in the plan on Pl. XX. In broad outline the indications were parallel with those previously obtained. By the accident of fortune fewer painted fabrics were found, but the same succession of periods was illustrated by the stratification, while at the bottom were more abundant traces of Neolithic houses and rounded cists (or *tholoi*) upon stone foundations (Pl. XXII). Unfortunately time and circumstances prevented us from completing our original intention of excavating systematically layer by layer the various levels between trenches A and Z exposed in the cut sections.

A brief account of these investigations was given in *Annals*, V, p. 71, and a detailed report, with diagrams and painted illustrations, was ready for publication in 1914. After the interruption caused by the War, it had already become apparent that a comparison with other materials which had meanwhile been accumulating, in particular from the researches of Baron von Oppenheim at Tell Halaf, would greatly enhance the usefulness of this report. Now, in 1937, there are also available the stratified materials from Mesopotamian sites already mentioned, extending southward as far as Samarra. It has become clear that special cultures, in which the decoration of hand-made pottery was a distinctive feature, developed at a remote date below the foothills of Northern Mesopotamia and Northern Syria. The work of the Chicago Expedition at Judeideh and Dr. Schaeffer's discoveries at Ras Shamra give illustration of their prevalence in Northern Syria, if they do not in fact indicate a focus of

their origins ; while the special character of the oldest pottery at Sakje-Geuzi, coupled with its relative abundance and persistence, suggests that one of the original centres cannot have been far away.

The westerly extension of these oldest civilisations now brings us to Mersin, where last season, as already mentioned, our preliminary work disclosed long periods of prehistoric cultures in the Pre-Hittite levels (reported in *Annals*, XXIV, pp. 52 ff.). In the lowest levels both plain and painted wares are reminiscent of those of Nineveh, while certain hard burnished fabrics from the bottom suggest a relationship even with Neolithic Jericho and far-distant Uruk. These and related problems await investigation during the present season ; but it has obviously become doubly important, for our work and for others, to publish, even thus late, our Sakje-Geuzi materials more fully in the light of modern knowledge.

The pottery has been classified on these lines by Miss Seton Williams, who was a member of our Cilician party last winter ; her analysis and conclusions form the third section of this report. She has had to deal mostly with the second selection of fragments from trench Z, allowed to us in 1911 by the Turkish authorities, and it is a misfortune that we have not been able to incorporate a studied account of the more complete and more attractive specimens in the Museum at Istanbul. We have, however, looked through these and are satisfied that the conclusions indicated will not require radical modification, though illustrations may well be amplified by selections from the Istanbul series. We have also attempted a re-classification of the potsherds found in trench A in 1908, both those described in *Annals*, I, and others hitherto unpublished. The result appears in outline below on Pls. XXIII, XXVII, XXXI-III and XXXV ; the illustrations and grouping being based upon the original drawings and notes, controlled by comparison with the later work on trench Z (1911).

The classification of the prehistoric pottery from trench Z shows that, as in trench A, three main periods are represented, namely :

In the bottom layers, the black incised and other 'neolithic' wares of Period I.

In the layers just above these, the excised¹ and punctuated black and

1. By 'excised' wares we mean those decorated by the actual excision of successive bits of clay from the pot surface, a technique which distinguishes them from the 'incised,' the 'punctuated' (or *pointillé*), and the 'jagged' wares.

grey wares, as well as the Early Painted fabrics comparable with those of Samarra and early Tell Halaf, representing our Period II.

In the upper layers, the stippled and other painted fabrics in the 'developed' style of Tell Halaf: our Period III.

So far so good: these conclusions are in general harmony with the results obtained on other sites as well as our earlier observations on trench A (*Annals*, I, Pl. XLIII, and p. 117); but when we come to correlate our periods with the striations in the soil the problem becomes complex. In trench Z, thirteen strata are visible in the section (Pl. XXII), of which Nos. 1 to 4 (counting the top) belong plainly to the Hellenistic and Late Hittite periods. The remaining nine strata represent the prehistoric periods, but the upper four of these (Nos. 5 to 8) contain no obvious building levels, though traversed by two striations which suggest levels of occupation, the actual floors of which must have lain farther back from the edge of the mound. As we descend in our trench and the contour of the mound expands, our section is seen to cut in strata 9-11 through parts of two floors with their corresponding layers of destruction and attrition. Below these, in stratum 13, appears the earliest level of occupation, including floors, hearths and foundations (Pl. XXII), and this alone extends along the whole length of our cutting. Being at ground level, it marks the original settlement, and forms the basis for the subsequent development of the mound. It is therefore obvious that the soil of the middle and upper layers of our trench consists, to an extent which increases with the development of the mound, of rejected debris from occupation levels nearer the heart of the mound. Such debris might well be stratified; and the presence of the thick lime revetment of Late Hittite times over all, seen both in trench A and trench Z, gave hopes at the outset that this would prove to be the case.

This expectation was not altogether realised; and Dr. Phythian-Adams, who supervised the excavation of trench Z in 1911, has with great kindness reviewed his original records and contributed a note upon the Stratification in Part II of this report.

He recalls particularly the traces of disturbance, registered at the time, affecting the stratification of layers ζ and η at a rather vital point. Thus, while the indications of find-spots (cf. Part 3) suggest the development of Period II upon the line of black earth at the bottom of ζ , the reconstruction of probabilities, after making allowance for the local intrusions, would place this cultural division at the top of ζ where a

similar band appears in the section. The position of Period II in our layers is thus uncertain; and it may reach even as high as the top of δ , where a striation seems to correspond with a marked change in the local fabrics. Such division, however, would not correspond with the cultural invasions, particularly the influx of Tell-Halaf motives which make their appearance at lower levels (cf. Pl. XXIX, 7-16). Possibly the solution of this problem will show that our three main periods require subdivision, as suggested by a comparison of the striations of trench Z with those of trench A, and that the influx of foreign wares and motives corresponds with intermediate phases rather than the main changes of the local wares. Such a problem, however, can only be solved satisfactorily upon the spot, and we must look forward to an opportunity of making a further cutting in the heart of this informative mound, with better hope of uncovering sealed deposits.

Notwithstanding these considerations, the classification of our sherds by three periods holds good, and it forms the basis for the arrangement of our plates. Thus the types which illustrate our lowest levels in both trenches, and even those of Period II (on Pls. XXIII-XXIV and XXV-XXVII respectively), show satisfactory agreement. So, too, in general do the developed wares, painted and otherwise, of Period III; but for the reasons stated, allowance must be made for the margin of error arising from infiltrations of sherds from one stratum to another and the uncertain limits to our Period II. Even so, these specimens of the oldest cultures, with their peculiarities and affinities, are well worth study.

There remains the matter of Songrus Hüyük, a large and important mound comparable in size with Sinjerli, and apparently (to judge from a glance at the materials) occupied in earlier Hittite times, possibly even in the Imperial period. Notwithstanding a natural wish to publish all these results together, it is not possible to deal adequately with the excavations of Songrus without a further consultation of the materials in Istanbul. Consequently we have to put this part of the report again on one side. It throws no light upon the problem of the Pre-Hittite prehistoric cultures: the Hellenistic material was abundant and the buildings of that period penetrated deeply, so that work was chiefly confined to an exploration of the Post-Hittite levels. Among the potsherds there appear to be some of the Hittite Imperial period, a testimony of an early Hittite settlement in the south, confirmed more recently by Sir Leonard Woolley's discoveries in North Syria. It may be conjectured

that Songrus marks the centre of local occupation of our vicinity until the changes of the Assyrian régime led the local chieftain to transfer his palace to the long-deserted mound of Jobba Hüyük some miles farther to the east.

The drawings reproduced on our plates have been made and arranged by Miss M. Ratcliffe, from paintings done in 1913 by Mr. Robt. E. Sherar, and our original field sketches, checked, so far as possible, by reference to actual sherds. We are greatly indebted to Mr. M. E. L. Mallowan for his opinions on a number of specimens, some of which are incorporated in our descriptive notes opposite to the plates. It is also gratifying to have been able to secure the further collaboration of Dr. W. J. Phythian-Adams, M.C., D.D., in the preparation of this report.

J. G.

II. TRENCH Z: THE STRATIFICATION

WITH PLATE XXII

Position and Method of Investigation.

This trench was dug on the outer side of the north-east wall of the palace (Pl. XX) and was approximately 10 metres in length and 6 and 7 metres in depth. It ran from just below the stone spout on the top of the wall (marked with an asterisk in the Plan) and extended from the wall to the outer contour of the mound.

After clearing the area of debris, we examined this piece of ground in successive layers each half a metre thick until the virgin soil was reached. Each of these layers was divided into sections by a series of lines roughly parallel to the outer face of the wall and half a metre apart. The layers were distinguished by Greek letters from α to θ , and the sections were numbered from the wall outwards, so that each section was clearly indicated by a letter and a number: thus $\epsilon 7$, for example, refers to the seventh section out from the wall in the fifth layer from the surface. The pottery from each section was collected and examined separately.

At the finish of the excavation the details of stratification which then stood revealed in the walls of the trench were carefully examined and measured, and the evidence provided by them was collated with that of the pottery.

The Strata.

The vertical section of the trench (Pl. XXII) reveals not less than thirteen easily distinguishable strata, nine of which are roughly horizontal while four are of irregular shape following the slope of the mound. The latter were separated from the rest by a layer of granite chips which could be traced downwards from the face of the palace wall, the lowest of the four upper strata thus indicating the contour of the prehistoric site in its latest phase. As we shall be concerned mainly with this earlier inhabitation of the mound, we may pass at once to the consideration of the nine lower strata.

Stratum 13 contains the remains of two roughly-built circular huts or hearths, the walls of which can be seen in section on the diagram. One of these (θ 8-13) had a lime floor beneath which no pottery was found; both contained masses of the greyish-black (grey to black) burnished wares characteristic of the site.

The four strata immediately above this (9-12) could be traced without much difficulty along the greater part of their length; but in the area covered by our sections ζ 3 and 4 and η 3 they were broken into by an intrusion from above, probably a rubbish pit. The evidence of the soil showed that this was identical with that of stratum 9, but the hole was in all probability dug in the following period.¹

Stratum 8 was separated from the levels below it by a thick band of black ash which can be followed (with two breaks in section ϵ 4) through ϵ 1-5 and ζ 7-15. This band must be the visible trace of a destruction which was later than the digging of the hole noted above.

The divisions of the remaining strata 7-5 were less important, but it will be seen below that the first of these (in γ 1-6) represents a real change in the culture of the site.

General Conclusions.

A detailed discussion of the pottery does not come within the province of this section of the report, but certain observations of a general character may not be out of place here.

It is evident, in the first place, that the pottery most characteristic of the prehistoric site through the greater part of its duration is the

1. Possibly by stone seekers removing a wall or foundations the line of which may be seen to cut the strata cleanly on either hand.

greyish-black burnished ware of which mention has already been made. It is therefore of interest to note that this ware passed through two apparently distinct decorative phases which can be related with some accuracy to the strata observed in the mound.

(i) In the first phase the pots are incised, the incisions being frequently, but by no means always, filled with white and the burnishing being on both sides of the ware. A small pointed stone about $2\frac{1}{2}$ inches long apparently used for the latter purpose was actually found in θ 11.

This incised ware is already present in our θ section and becomes frequent in η , but it seems to disappear entirely above this. Its vogue appears, in other words, to cover strata 11-13. This represents our Period I.

The only painted pottery belonging to this period which we found in the trench was represented by a number of fragments (in η 2) from a vase crudely smeared rather than painted with red streaks upon a buff ground (Pl. XXVI, 11). A fine rim of well-baked light clay with a dark brown band of paint on its interior (Pl. XXIV, 3) came also from η 3; but this section, as has been said, shows signs of an intrusion from the levels above, and this pot should possibly be referred to stratum 8.

(ii) The second phase of the burnished greyish-black ware appears in two forms, the 'punctuated' or *pointillé* in which the pattern is made by rows of small evenly-placed dots, and the 'excised' in which a continuous zig-zag design is apparently scooped out of, rather than cut into, the fabric of the vase.

Specimens of both these types were found sparsely in our ζ sections, but there can be no doubt that their main vogue was in the period immediately following this. It is in fact improbable that the ζ fragments really belonged to that level at all, as they were found either in sections 3-6, in which there was evidence of intrusion from above, or in sections 8 and 9. A *pointillé* fragment exactly similar to those from ζ 3, 4 and 6 was found in ϵ 8. We may conclude, in short, that for some reason the incised decoration of the greyish-black wares was abandoned during the period represented by our level ζ , though these wares still continued to be made, and that it was resumed in two different styles in the subsequent period.

It should be noted in passing that if these conclusions are correct, it will be necessary to approach with caution the problem of dividing the early history of the mound into three distinct periods, of which one

is represented by our level ζ . Actually of this level only section 2 can be treated with confidence as an undisturbed deposit, the remainder being either contaminated by intrusion or distributed between strata 8 and 9. It must be observed in this connection that the tree-design and 'dancing-girls' fragments of this layer both came from section 6, and were found with the *pointillé* and excised wares, which may belong, as we have seen, to stratum 8. A fragment with the tree-design was actually found in δ 1.

These decorated wares, to resume, flourished during the period represented by the layers ϵ and δ , but they disappear with some abruptness above this point. The stratification of the mound reveals actually along the bottom of γ 1-6 a dividing line the nature of which has unfortunately not been recorded in our notes. An examination of the pottery, however, indicates at this level not merely a disuse of the previous decorative *motifs* but an equally definite change of fabrics. Up till now the more common utensils had normally been made in a coarse, chocolate-brown pottery: this was now displaced by a new series of greyish, brick-red and buff wares. The distinction, it must be said, is not apparently a revolutionary one; it does not, for example, indicate the kind of change which separates the prehistoric culture of the mound from that of the Late Hittite which followed it. Its existence is none the less undeniable; and the disappearance of the excised and *pointillé* burnished wares is the most marked, but not the only, feature by which it can be detected.

Summary.

To sum up, the stratification of trench Z seems to resolve itself into three main divisions. The first, corresponding with strata 13-11 (layers η - θ), is distinguished by the presence of the incised wares which disappear gradually in its upper deposits: to this should also possibly be assigned strata 10-9, which show in their undisturbed sections no trace of the excised and *pointillé* wares of the succeeding period. These wares, which are numerous in strata 8-7 (layers δ - ϵ), seem to mark a second period in the occupation of the site; while a third is indicated not only by their absence from strata 6-5 (layers β - γ) but by the positive evidence of a change in other types of fabric in these levels. Such, at least, seems to be the history of this area in terms of its own most characteristic local product; and it is with these considerations in mind that the

painted pottery should be studied, particularly as regards its grouping and provenance.

W. J. P.-A.

III. TRENCH Z: CLASSIFICATION OF THE POTTERY

With reference to Pls. XXII, XXIV-XXVI, XXVIII-XXX, XXXIV and XXXV

The pottery from trench Z (like that from trench A) seems to represent five periods, three of which are prehistoric and two historic. Between these two classes there appears an interval similar to, but even longer than, that at Chagar Bazar.¹

PERIOD I. This is the earliest period of inhabitation on the mound, and contains a series of hearths, floors and the remains of huts, the bottom levels resting upon clay and marl. This includes levels 13-11 of trench Z on Pl. XXII.

The Pottery is hand-made, plain and coarse, grey to black burnished, with line incisions sometimes filled with white. The shapes are simple, and there are very few painted sherds. The type series from trench Z is illustrated on Plate XXIV.

Foreign Relations are with the prehistoric levels of Carchemish, Judeideh (XIV) and Ras Shamra in Northern Syria; and east of the Euphrates with Chagar Bazar (15),¹ Arpachiyah (T T 10 and below) and Nineveh (I).

PERIOD II. This shows an increase in the number of painted sherds, the beginning of Tell Halaf hatched wares, with Samarra specimens also present. (Types on Pl. XXV.) Plain wares are punctuated but not incised. To judge from the find-spots this period corresponds with strata 10-9 in which several occupation levels but no definite buildings are recorded; it ends with a period of destruction of the burnt level 8 in which some specimens occur.

Owing to the disturbance in these strata described in the second part of this report, the precise limits to this period cannot be defined.

Foreign Relations are with Chagar Bazar (13-15), Nineveh (IIb), Arpachiyah (T T 7-10) and Tepe Gawra (XV-XVI?).

PERIOD III. This represents the developed Tell Halaf style, and includes levels 5-8, *i.e.* to the summit of the prehistoric mound. There

1. *Iraq*, III, Pt. I, p. 8.

is a great increase in the number and sophistication of painted wares including stylised mouflon. The plain burnished wares show excised designs and new forms. The majority of the wares are hand-made, some of them turned on a slow wheel. The types are illustrated on Pls. XXVI and XXVIII-XXX. The fabrics seem to resemble those from Tell Halaf more closely than those from any other site.

Foreign Relations are with Ras Shamra, Chagar Bazar (6-12), Arpachiyah (6), Tepe Gawra (XIV) and Nineveh (IIc).

PERIOD IV. This bears no relation to the periods preceding it. Its characteristic pieces are wheel-made, belonging to the Late Hittite period. It is contemporary with, or just later than, the building of the Main Wall. As the area dug is just outside the wall, these levels, 3 and 4, also contain earlier materials from the foundation trench. Types on Pls. XXXIV-XXXV.

Foreign Relations are with Carchemish, Sinjerli and Tainat (also with the Cilician sites of Sirkeli and Kazanlı, examined last year, of which a description will be published shortly).

PERIOD V. This contains sherds of the Hellenistic and Roman periods and is contemporary with the buildings marked B and H uncovered in 1908 within the wall.¹ The mixed material may be accounted for by the slope of the mound, and the fact that it lay outside the wall.

PREHISTORIC SITES WITH POTTERY CORRELATED TO SAKJE-GEUZI.

Sakje-Geuzi.	Chagar Bazar.	Judeideh.	Ras Shamra.	Nineveh.	Arpachiyah.	Tepe Gawra.	Other Sites.
PERIOD III. Developed Tell Halaf. Finest Painted Wares. Grey Burnished Impressed Wares.	Levels 6-12 Painted Tell Halaf		Ugarit IV	IIc Tell Halaf	T T 6 Tell Halaf	Level XIV Tell Halaf	Tell Halaf Carchemish
PERIOD II. Early Tell Halaf and Samarra. Plain Grey-Brown Burnished Wares.	Levels 13-14	Below XIII Samarra and Tell Halaf Sherds. No definite settlement	Lower Ugarit IV	IIb Early Painted	T T 7-10 Tell Halaf and Samarra	Levels XV-XVI Early Tell Halaf	Tell Halaf Samarra
PERIOD I. Plain Grey-black Incised. Burnished Wares.	Level 15 Incised Wares	Judeideh XIV Pattern Burnished	Ugarit V	I Plain Wares	T T 10 and below Plain and Incised Wares		Carchemish

1. *L.A.A.A.*, Vol. I, Pl. XXXVI.

DETAILED DESCRIPTION OF THE POTTERY

PERIOD I. (*With special reference to Pl. XXIV.*)

The vessels are all hand-made, and clay tempered with small white grits.

The wares are of three main varieties :—

(1) Thin grey to black sherds burnished on both sides and usually heavily slipped, over a grey, gritty core. This ware is both plain and incised, and predominates in this period (Nos. 8, 9 and 10).

(2) Painted wares are rare, and of two kinds :—

(a) With a thin out-curving rim of whitish clay decorated inside with a band of black paint (No. 3).

(b) With red bands of paint applied on a thick pink slip over a buff, gritty core (No. 6).

(3) Plain wares, which are poorly baked and thick, with a heavy black core (*e.g.* Nos. 16 and 17).

Shapes. These are plain :—

(1) Straight-sided vessels with flat bases and wide mouths are most usual (Nos. 1 and 9). The forms are identical with those illustrated by Sir Leonard Woolley from the Yunus Kilns¹ at Carchemish, and some have already been published from trench A.² The Sakje-Geuzi vessels differ from those from Carchemish in having incised decoration upon a burnished surface.

(2) A wide-mouthed jar with everted rim. This is grey but only burnished on the outside (No. 5). This form also occurs with a longer straight neck and is undecorated in both cases (No. 13).

(3) Coarse red-brown pottery with an everted rim. This belongs to the stumpy-necked cooking-pot class of vessel (No. 14).

The other forms are a variation of these three.

Rims. These are in most cases plain, either everted or straight with an outward inclination. An exception to this is a wet-smoothed grey bowl with an inward curve and a raised ledge running round the rim about one centimetre from the lip (No. 15).

Handles. These are rare and only two examples occur :—

(a) An incipient ledge on a very coarse red-brown, unburnished hole-mouthed pot with a straight rim (No. 16).

1. *Iraq*, Vol. I, Pt. 2, p. 152, Fig. 3, nos. 1 and 2.

2. *L.A.A.A.*, Vol. I, Pl. XLV; republished in this report on Pl. XXIII.

(b) A small pierced lug from γ 6, of the more usual grey variety (No. 7).

Bases. These on the whole are flat, and in two cases (Nos. 9 and 10) decorated with incisions filled with white in the form of a cross.

Decoration.

(1) Incision. This usually occurs on the outside of the grey-black burnished wares and takes the form of hatchings, triangles, straight lines and chevrons, usually decorating the rim of the vessel. (Pl. XXIV, Nos. 1, 8 and 9, and Pl. XXIII, Nos. 1-4; also *Annals*, I, Pls. XLV-XLVI.)

Exact parallels to the hatched ware can be found at Chagar Bazar¹ (No. 15); it also appears at Ras Shamra.² The incisions are sometimes filled with white clay but are usually plain.

(2) A few painted wares: bands of black and red matt paint applied over a light slip (Nos. 3 and 6).

(3) Pebble burnishing, usually in the form of long lines or hatching on an otherwise wet-smoothed surface (No. 4). This finds a parallel at Judeideh.³

Flint and Obsidian.

There are a few flakes but no worked implements worthy of note. It was probable that the obsidian came from the newly-discovered field near Akserai⁴; and this has now been confirmed, after analysis, by Professor Miles Burkitt.

Foreign Relations.

The closest connections are with the neighbouring site of Carchemish,⁵ where the plain and incised wares are common and the shapes bear more relation to Sakje-Geuzi than those farther afield. It is more than probable that this grey incised ware has its origin somewhere in the southern Anatolian highlands, as it is found elsewhere only in smaller quantities. A few sherds were discovered at Nineveh (I)⁶ and at Ar-

1. *Iraq*, Vol. III, Pt. I, Pl. III, no. 13.

2. *Syria*, XVI, p. 164.

3. *American Journal of Archaeology*, Vol. XLI, no. 1, p. 11.

4. *L.A.A.A.*, Vol. XXIV, p. 52.

5. *Iraq*, Vol. I, Pt. II, p. 162.

6. *L.A.A.A.*, Vol. XX, Pl. XXXIII.

pachiyah (level T T 10),¹ and are considered by Dr. Mallowan to have an Anatolian origin. Some have also been found at Chagar Bazar (15).²

There are also connections with pebble-burnished sherds from Northern Syrian sites, *e.g.* from Judeideh (XIV),³ the pottery from which is as yet unpublished, and also from Ugarit (V).⁴

PERIOD II. (*With special reference to Pl. XXV.*)

Wares are still hand-made, of clay in most cases, and practically gritless. The grey- and brown-burnished wares are of a different variety and shape from those of the previous period.

(1) Grey, red and brown wares, burnished only on the outside, predominate (Nos. 10, 16 and 17). These are decorated with punctuations rather than incisions, and are not so heavily slipped as were the earlier wares. The core is usually grey and pebble-burnishing occurs (No. 10 (int.)).

(2) The painted pottery resembles Early Tell Halaf (Nos. 3 and 4) and Samarra wares (Nos. 1 and 2).

(3) The plain coarse wares are of slightly better quality, usually brown to red with a grey core (No. 6).

Shapes. These are plain, but the vessels are no longer straight-sided.

(1) Bowls with slightly everted rims and flattened bases, burnished on the outside grey, brown or red, with wet-smoothed exteriors, and usually decorated with punctuated designs (Nos. 8, 9 and 10).

(2) Everted rimmed vessels of the cooking-pot variety (No. 6).

(3) Straight-sided or slightly outcurving painted vessels of thin ware with a buff core (Nos. 3 and 4).

Rims. These are plain or slightly everted with a short neck (Nos. 6 and 8).

Handles are either knobs or pierced lugs, no ledge handles appearing.

Decoration.

(1) Punctuated (Nos. 16 and 17) or excised designs (Nos. 8, 9 and 10) on the outside of the vessel, usually in bands or lines around the

1. *Iraq*, Vol. II, Pt. I, p. 174.

2. *Iraq*, Vol. III, Pt. I, p. 52, Pl. III.

3. *American Journal of Archaeology*, Vol. XLI, no. 1, p. 11.

4. *Syria*, Vol. XVI, 1935, p. 164.

shoulder. These occur on the plain bowls, which are often pebble-burnished inside (No. 10).

(2) Painted wares are of three varieties :—

(a) An example of the linked dancing girls familiar on sherds from Samarra, Tell Halaf, Chagar Bazar¹ and Arpachiyah, executed in black paint on a cream-buff background (No. 1). It is a Samarra *motif* and is supported by a second sherd bearing a plant design in black on a cream background² (No. 2).

(b) A fragment of a straight rim decorated after an Early Tell Halaf *motif* with straight lines in dark brown-black paint (No. 4 (ext.)), and another with typical hatchings (No. 3).

(c) Red-burnished paint applied in lines or squares on a pink-buff fabric, but this is so much worn that it is impossible to see the design in detail (No. 5).

(3) Incised figure of a man with bushy tail, the head unfortunately missing. It is incised on brown-burnished sherds from ζ 12-13 (No. 15). The figure has a wasp waist rather similar to a painted figure from Carchemish.³ The general drawing is quite good and the muscles are represented.

Flint and Obsidian were found in small quantities but were not numerous enough to allow of any definite classification.

Foreign Relations. These are chiefly with Samarra⁴; the linked dancing girls appearing in a rather severe geometric style, which occurs also at Arpachiyah,⁵ Nineveh, Chagar Bazar,⁶ and in a slightly more developed form at Tell Halaf.⁷

The plant form (No. 2) is another well-known Samarra *motif* occurring in a modified form at Arpachiyah. At Sakje-Geuzi it occurs on a ware resembling Tell Halaf in texture. The creamy-buff clay and matt paint are characteristic of Samarra. The form of this fragment suggests the spout of a jug.

The other associations are with Early Tell Halaf, showing the finer and typical decoration of that pottery.

1. *Iraq*, III, Pt. I, Fig. 27, no. 23.
2. *Tell Halaf*: Von Oppenheim, Pl. LIII, no. 2.
3. *Iraq*, Vol. I, Pt. II, Pl. XX.
4. Herzfeld: *Die Ausgrabungen von Samarra*.
5. *Iraq*, Vol. II, Pt. I, Fig. 77, no. 19.
6. *Iraq*, Vol. III, Pt. I, p. 49.
7. *Tell Halaf*: Von Oppenheim, Pl. LIII, no. 18.

The man's figure and its possible relation with Carchemish has already been dealt with.

As recent research has tended to place Samarra with Early Tell Halaf or even earlier, we feel justified in dating our Period II in this era.

A few sherds of worn Samarra and Tell Halaf in conjunction were also found at Judeideh in the level lying above Judeideh XIV.

PERIOD III.

This is the period of the Developed or Late Tell Halaf styles. The painted fabrics of the 1911 trench (Z) were, however, comparatively few ; they are shown on Pls. XXVI and XXVIII-XXX. With these may be compared the fragments from the adjacent trench A, cut in 1908 from approximately the same levels (Pls. XXVII and XXXI-XXXIII).

The wares are both hand-made and turned on a slow wheel. Plain fabrics still predominate, but there is a noticeable increase in the number and a change in the texture of the painted wares. The fabric of the plain wares remains grey and gritty, but the painted fabrics are much finer and the clay usually buff or sandy, often with a heavy slip.

(1) The plain grey-brown burnished wares are usually decorated with an excised pattern (Pl. XXVI, Nos. 8 and 9) or a small punctuated dot (Pl. XXVI, No. 12), much finer than that occurring in the previous period. The former are burnished only on the outside, the latter on both sides. For the first time there is a noticeable increase in the number of monochrome red sherds.

(2) Painted wares are common, with great variety of design, which is usually executed in black, red or brown paint on buff or apricot fabric or slip. The paint is both lustrous and matt. The cores are sometimes finely levigated (Pls. XXVIII-XXIX).

(3) The unburnished wares are of a coarse, thick variety with heavy grey core and are entirely hand-made.

Shapes. These offer a greater variety than hitherto :—

(1) Straight-sided deep bowls¹ from γ 5 and 7, similar in shape if not in design to some from Arpachiyah.²

(2) A plain bowl of monochrome red, with a plain, slightly incurving rim ; similar to but more curved than type 5 from Carchemish.³

1. *Iraq*, Vol. II, Pt. I, Pl. 72.

2. Three of these bowls come from an unstratified deposit.

3. *Iraq*, Vol. I, Pt. II, p. 152.

(3) A type of flat dish with straight rim in plain, red ware.

(4) The usual everted rim on a small globular pot of burnished ware, like type 13 from Carchemish,¹ though differently decorated (Pl. XXVIII, No. 5).

(5) Vessels whose rim and decoration are reminiscent of the Arpachiyah cream bowl, or like that illustrated in the Nineveh pottery types.²

(6) Vases with a wide, straight neck, rounded body and flat base, like the Arpachiyah Polychrome vase³ (Pl. XXX).

Rims are of three types :—

(1) Thin, straight, decorated and set on an outward angle (Pls. XXVIII, No. 1, and XXIX, No. 1, etc.).

(2) Everted rims of globular vessels.

(3) Straight necks of wide-mouthed jars.

Handles. None.

Bases are usually flat and form part of the body of the vessel.

Decoration.

The plain, burnished wares are decorated with a regular excised design, usually on a coarse pot burnished only on the outside, the decoration forming one or two bands well below the lip of the vessel and encircling the exterior (Pl. XXVI, Nos. 8 and 9).

The painted wares offer a variety of *motifs* :—

(a) The typical Tell Halaf designs : the stylised mouflon, the dot and stipple (Pls. XXIX and XXX), hatched and lattice designs in black paint on buff or cream grounds (Pl. XXIX, Nos. 15, 16 and 17).

The most interesting perhaps is the mouflon, a vertical design in brown lustrous paint on cream slip.⁴ This is illustrated on Pl. XXX, No. 2.

A number of very fine Late Tell Halaf designs from trench A were published in the 1908 *Annals*.⁵ These include the rosette type (but on the outside of the vessel) (Pl. XXXII, No. 1), and also dot and stippling (Pl. XXXIII, Nos. 1-7), hatching, lozenges (Pl. XXXIII, No. 9) and triangles, all common at Arpachiyah, Nineveh and Carchemish in similar levels.

1. *Ibid.*, p. 152.

2. *L.A.A.A.*, Vol. XX, Pl. XLVIII, nos. 2 and 4.

3. *Iraq*, Vol. II, Pt. I, Pl. XX.

4. *Iraq*, Vol. II, Pt. I, Fig. 75.

5. *L.A.A.A.*, Vol. I, Pl. XLVIII.

There is a single example of the plant design from trench Z (Pl. XXIX, No. 2).

(b) The second form of design is in brown or red burnished paint on a cream or apricot slip, or straight on to the fabric. This is applied in a series of straight lines, chevrons or triangles (Pl. XXVIII, Nos. 1, 4, etc.).

Obsidian.

There is a marked increase in the number of worked blades and flakes in these levels, but they are still too scarce to be classified.

Foreign Relations.

This period, as has already been stated, corresponds with Late Tell Halaf. Its chief relationships are with the North Syrian sites of Ras Shamra, level IV,¹ and Carchemish, and with the Mesopotamian sites of Chagar Bazar, 6-12, and Tell Halaf.

It is also linked with Nineveh 2c, Arpachiyah T 6, and Tepe Gawra XIV.²

PERIOD IV. (*With special reference to Pls. XXXIV-XXXV.*)

This is the historical Late Hittite period.

The wares are wheel-made and often plain. The fabric is well baked, hard and practically gritless, usually of a sandy or red clay.

The common wares still retain simple shapes, and the majority of plain wares are brown-buff, sometimes wet-smoothed, at other times burnished.

The painted wares are rather drab, consisting of black paint, usually applied over a dark-brown background. These are thinner than the common pottery. Probably the sherds described were dropped at a period contemporary with or just after the building of the Palace and Enclosure Wall, which has been dated to the VIIIth or VIIth century B.C.³

Shapes.

The remains are almost too fragmentary to provide any definite conclusions on this subject.

1. *Syria*, Vol. XVI, p. 164.

2. *Bulletin of the American Schools of Oriental Research*, no. 66, 1937, pp. 14-19.

3. *The Hittite Empire*, Garstang, p. 275; *Le Problème Hittite*, E. Cavaignac, 1936, p. 149.

Only three forms emerge from the pieces :—

1. The flat dish or bowl with straight or slightly incurving sides and a flat base.
2. The everted rimmed stumpy-necked plain pot with flattened or rounded base, usually of plain or coarse ware.
3. Straight-necked vessels with flat bases :—
 - (a) A goblet on a high stand, somewhat reminiscent of the champagne cups from Carchemish, restored from fragments. This was found under the stone spout above *a* 1 (Pl. XXXV, No. 5).
 - (b) A small cup with a loop handle clearly of Hittite design, resembling forms found on the Cilician plain.

Rims.

Plain and straight or everted. One belonging to a Hittite form is slightly incurving.

Handles.

No handles have been observed apart from (*b*) mentioned above.

Bases.

The only one worth noting is a semi-ring semi-disc of yellow brown clay.

Decoration.

This seems to consist exclusively of painted wares, which are inferior to those of the Tell Halaf period both in texture and painting.

Their chief characteristic is the darkness of the ware, black paint on dark-brown slip, the whole being on a matt surface.

The decoration is usually in bands running round the vessel, sometimes divided by dots, and occasionally half loops.

There are also several fragments showing brown on a buff slip.

Foreign Relations.

It is to be hoped that more light will be shed on the ceramic typology of this period by work now being done at Tell Tainat in Northern Syria by the Expedition of the Oriental Institute of Chicago, where there is also a Syro-Hittite Palace dating to about the VIIIth century.¹ There

1. *American Journal of Archaeology*, Vol. LXI, no. 1, p. 9.

is some relationship in wares also with those discovered in the course of investigations in Cilicia in 1936-37 at Sirkeli and Kazanlı, to be published in the next number of the *Annals*.

The only definite conclusion to be drawn is that the connections of Sakje-Geuzi were not with the wares of the Anatolian plateau, and that the pottery sequence exemplified at Alishar and Boghaz Keui has no validity south of the Plateau; it did not in fact extend beyond the Taurus.

PERIOD V.

The pottery is all wheel-made and presents a more sophisticated appearance.

The wares are practically all plain; they are not slipped and seldom burnished. The clay is fine and gritless and very well fired, of bright red or sandy colour.

Some surfaces present a grain-washed appearance, but there is only one fragment with a really fine burnished slip.

Forms.

These consist of :—

1. Small bowls with everted rims.
2. Jugs with flattened or rolled rims and two handles.
3. Globular vessels with straight necks.

Rims.

These are of several types :—

1. Thin everted, of sandy fabric, wet-smoothed.
2. Flat heavy rim, sloping outwards, with slight ridge at some distance below.
3. Rolled rims of light brown fabric.

Handles.

None.

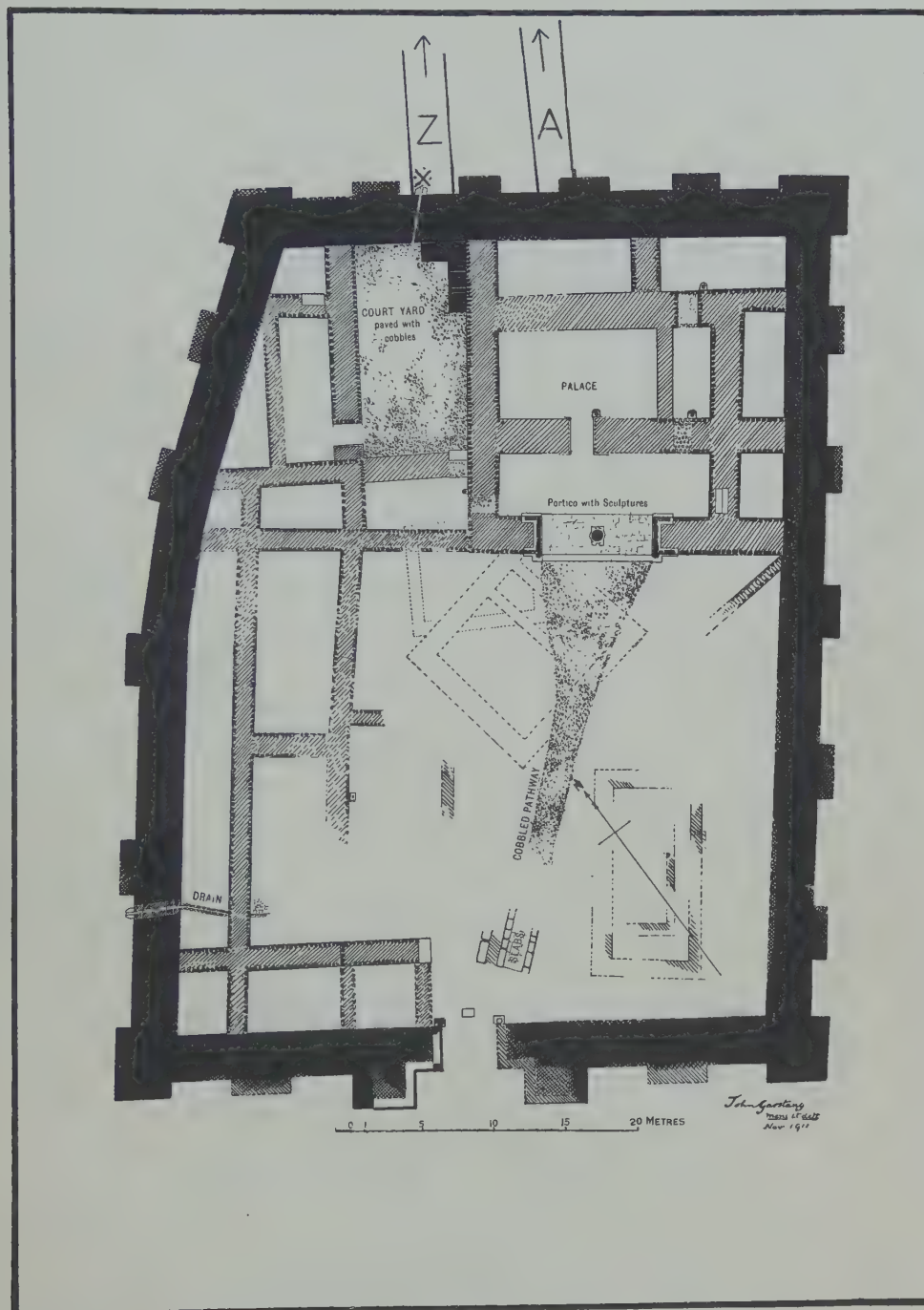
Bases.

Ring variety.

Decoration.

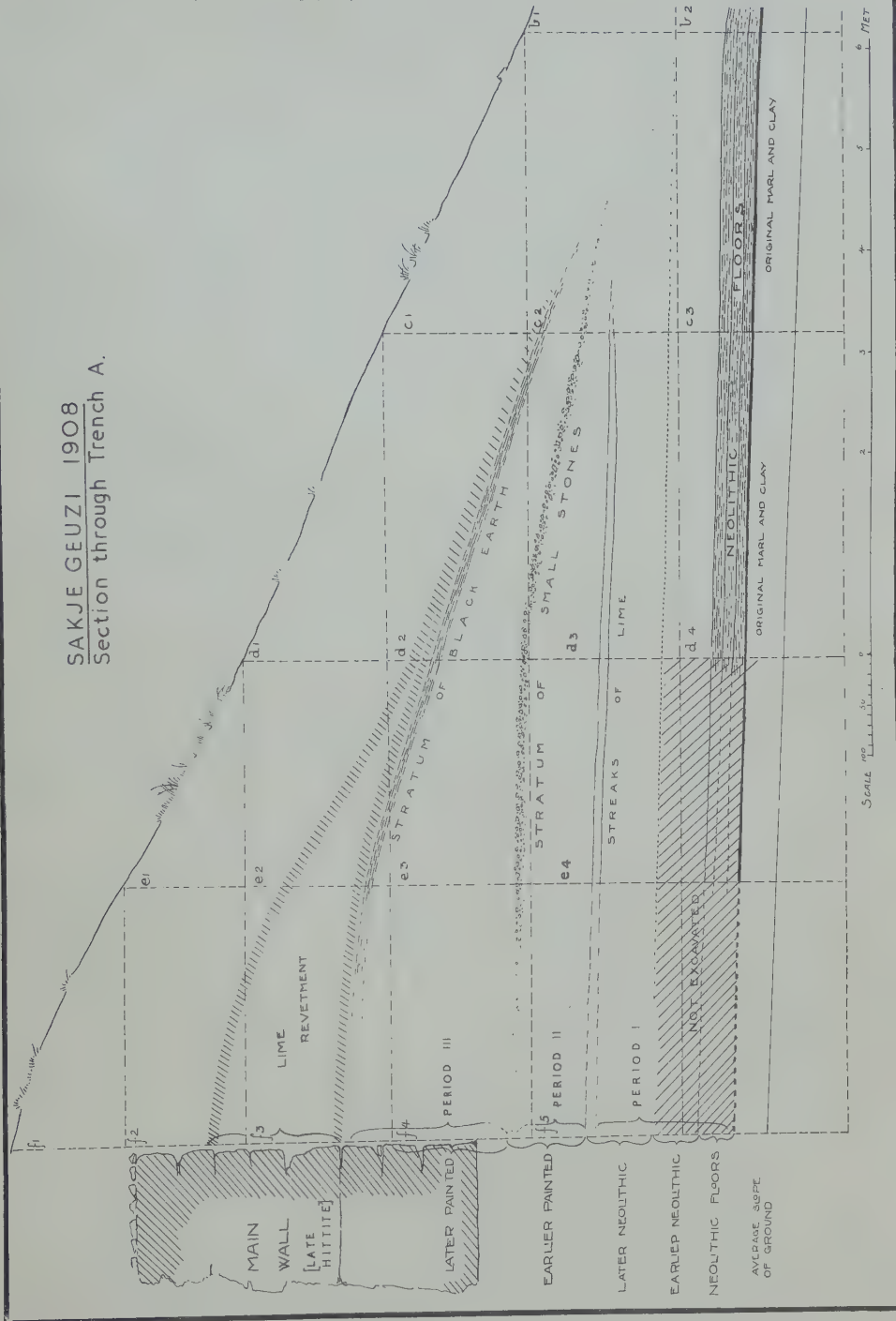
Only one fragment is decorated with black matt paint; this shows line and dot design on light red ware, with no slip.

V. S.-W.

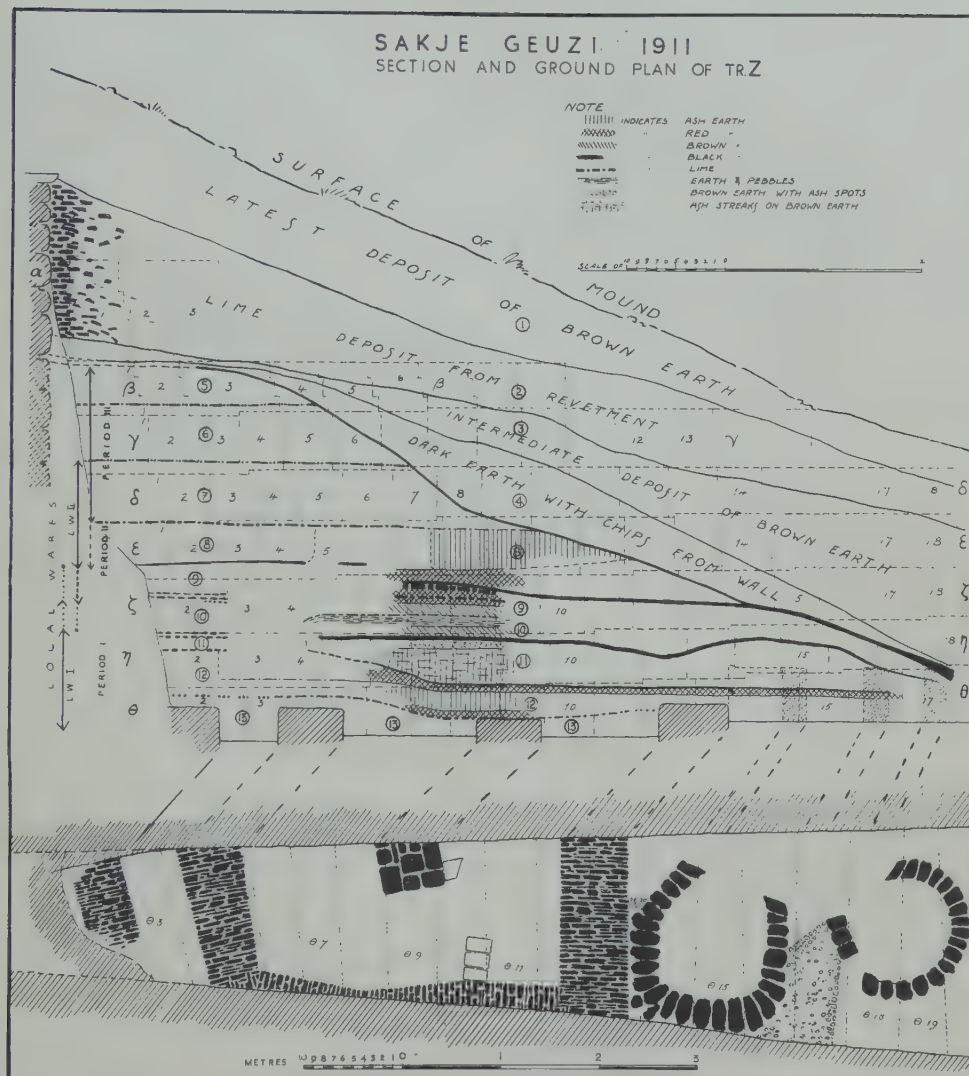


SAKJE-GEUZI, 1908-11. PLAN OF PALACE AREA ON JOBBA HÜYÜK
SHOWING POSITION OF TRENCHES A & Z

SAKJE GEUZI 1908
Section through Trench A.



SAKJE GEUZI 1911
SECTION AND GROUND PLAN OF TR.Z

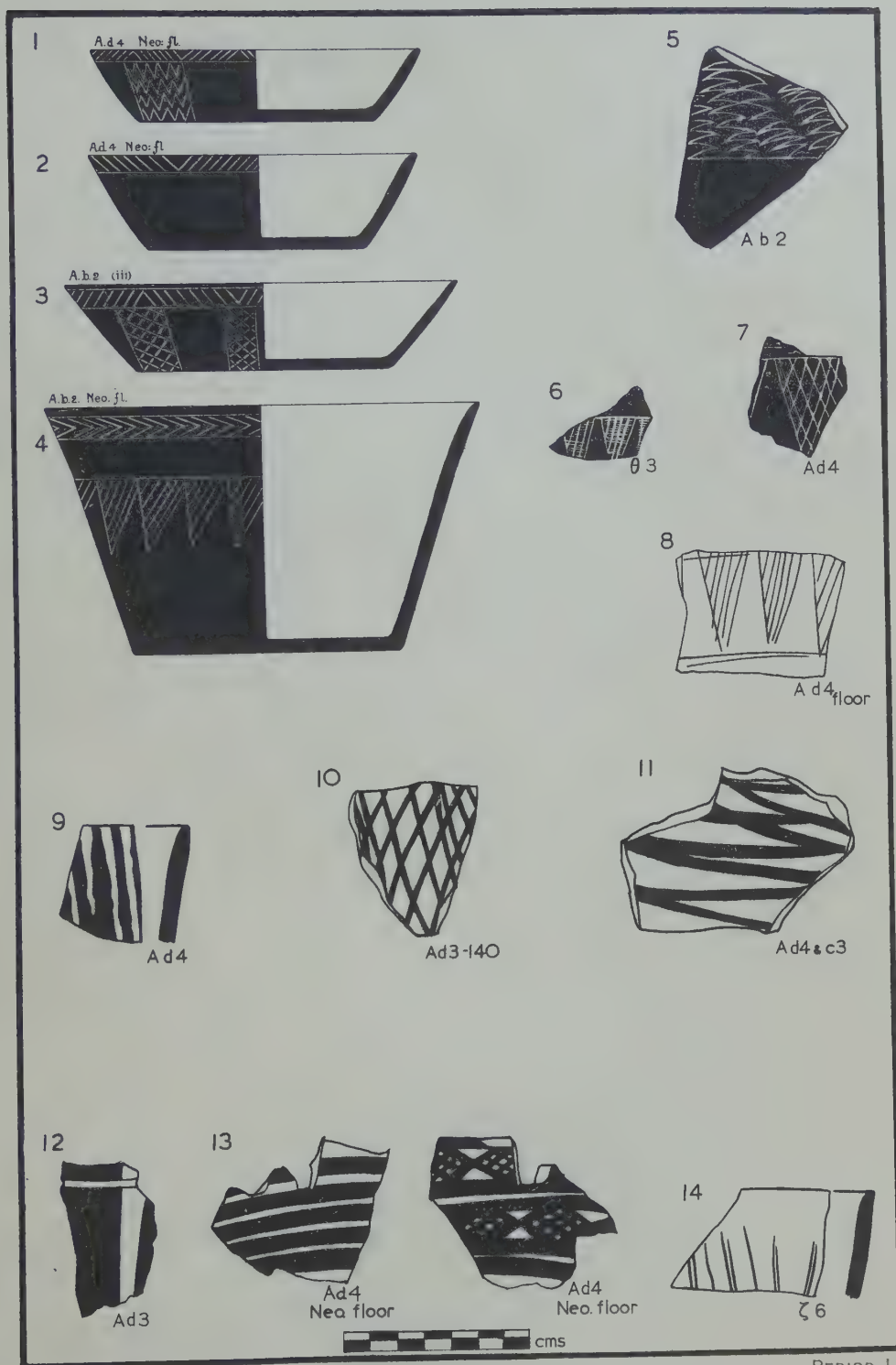


SAKJE-GEUZI. PLATE XXIII.

- 1* A d 4 } Two basins reproduced from *Annals*, I, Pl. XLV.
- 2* A d 4 } Core grey, black to brownish bnd. slip int. and ext. ; dec.
incised lines filled white.
- 3* A b 2 As above, but surface grey in colour.
- 1* A b 2 As above, but notably thin and black surf. highly burnished.
- 5* A b 2 [Unique decoration of continuous curving lines.]
- 6 Z θ 3 Dark grey pottery, fine grits ; black bnd. slip int. and ext. ;
incised dec. ext.
- 7 A d 4 Dark grey ware, some grits ; brown grey bnd. slip int. ; black
slip bnd. except in decorated areas ext. ; dec. incised lines
filled white.
- 8 A d 4, floor. Grey ware, some fine grits ; brown bnd. slip int. ;
light brown slip ext. ; signs of possible burnishing ; dec.
incised lines.
- 9 A d 4 Grey ware, some grits ; wet-sm. int. ; slip-sm. and clumsily
bnd. in vert. streaks ext.
- 10 A d 3 Brownish ware, core carbonised, some grits ; wet-sm. int.
and ext. ; line pattern bnd. in lattice pattern ext.
- 11 A c 3, A d 4. Roughish grey ware ; core carbonised ; thick slip
int. and ext. ; matt bnd. ; line pattern ext.
- 12 A d 3 Grey gritty ware ; light pinky-buff surfaces ; wet-sm. int. ;
pinky-cream slip ext. ; brownish painted dec. ; one carved
groove.
- 13 A d 4 Buff ware, various sized white grits ; cream slip int. and ext. ;
black painted dec. int. and ext.
- 14 Z ζ 6 Grey ware, fine grits, core carbonised ; grey int. with lines
bnd. before firing making slight indentations ; very dark
brown bnd. slip at top int. ; pinky grey-brown bnd. slip ext.

N.B.—The scale shown applies to all except Nos. 1-4, which
are approximately $\frac{1}{3}$ to scale.

An * denotes that the authority is only a painting, not the original notes or
fragment.



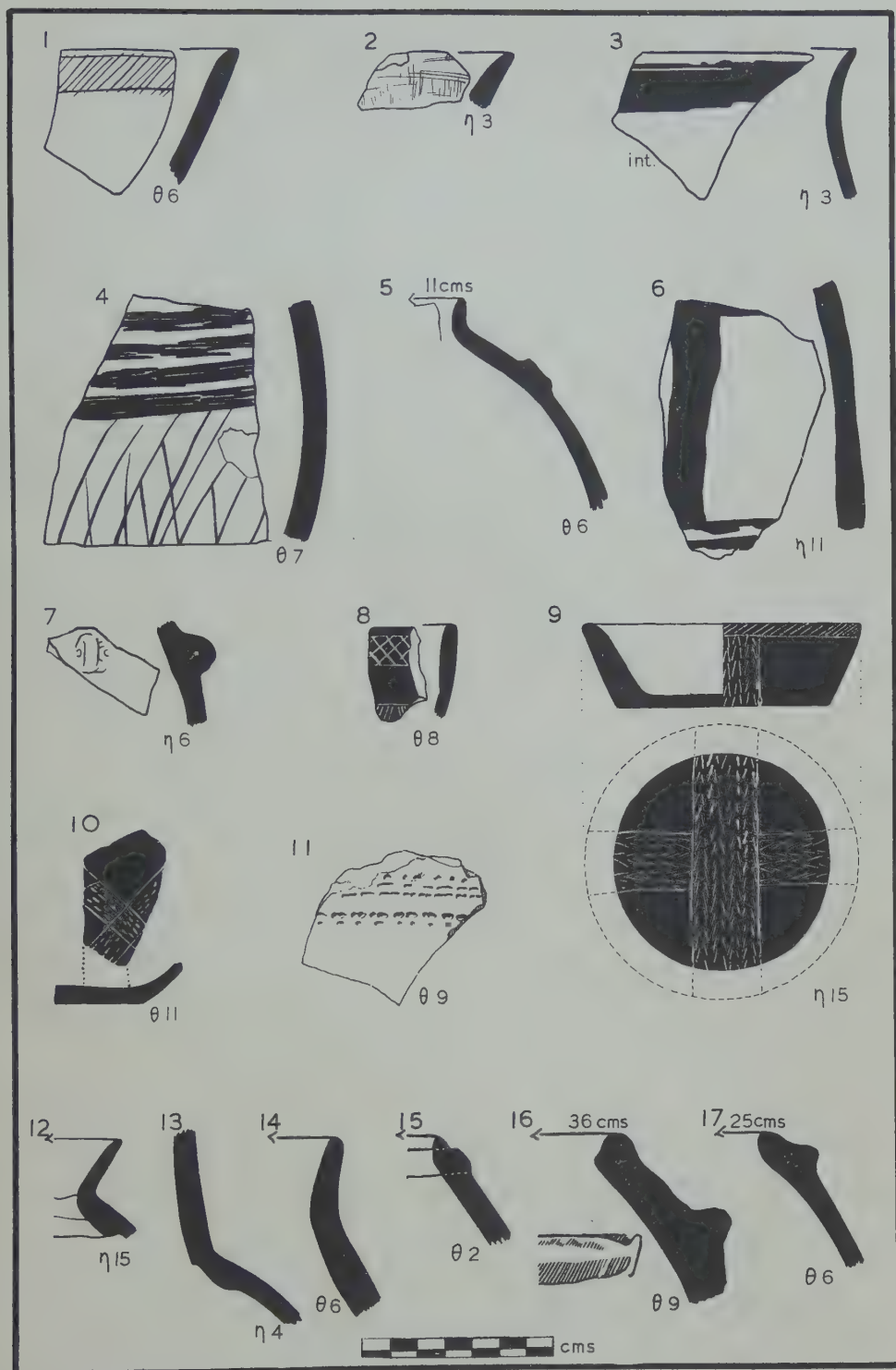
SAKJE-GEUZI, 1908

PERIOD I

INCISED, BURNISHED AND PAINTED POTTERY FROM THE BOTTOM OF TRENCH A
AND NOS. 6 & 15 FROM TRENCH Z

SAKJE-GEUZI. PLATE XXIV.

- 1 θ 6 Buff ware, fine grits, core carbonised ; pink surface possibly
bnd. ext. and over rim int. ; incised dec. ext. after baking.
- 2 η 3 Brownish red ware, red bnd. surface, scratched (?) dec.
- 3 η 3 Pale buff gritless pottery ; dec. black paint int.
- 4 θ 7 Dark grey ware, some grits ; interior carbonised ; grey-brown
slip ; bnd. lattice pattern ext.
- 5 θ 6 Dark grey ware, fine grits, core carbonised ; grey-brown slip ;
bnd. lattice pattern ext.
- 6 η 11 Buff ware with grits ; warm surface ; both surfaces wet-sm. ;
matt red painted dec.
- 7 η 6 Grey ware with white grits, core carbonised ; grey bnd. slip
ext.
- 8 θ 8 Grey ware with fine grits, core carbonised ; black bnd. slip
extending inside over rim ; incised dec. after baking ; incisions
whitened.
- 9* η 15 Dark ware, burn. black int. and ext. with pattern of short
lines whitened ext. and base.
- 10 θ 11 Grey ware with grits ; grey-black bnd. slip int. and ext. ; dec.
int. and ext. with whitened incised lines.
- 11* θ 9 Pattern of short excisions.
- 12 η 15 Grey-black ware ; bnd. slip ext.
- 13 η 4 Grey ware with grits ; grey-black bnd. slip ext. ; neck made
separately and fitted after.
- 14 θ 6 Grey core with grits ; brown slip surfaces bnd. horiz. int. and
ext. ; roughly made.
- 15 θ 2 Dark grey ware ; bnd. surfaces, applied ridge near rim ext.
- 16 θ 9 Dark grey ware, gritty core ; chocolate surfaces ; wet-sm.
ext. ; roughly made ; elementary ledge handle.
- 17 θ 6 Dark grey ware with grits ; bnd. slip int. and ext. Ridge
below rim ext.



SANJE-GEUZI, 1911

PERIOD I

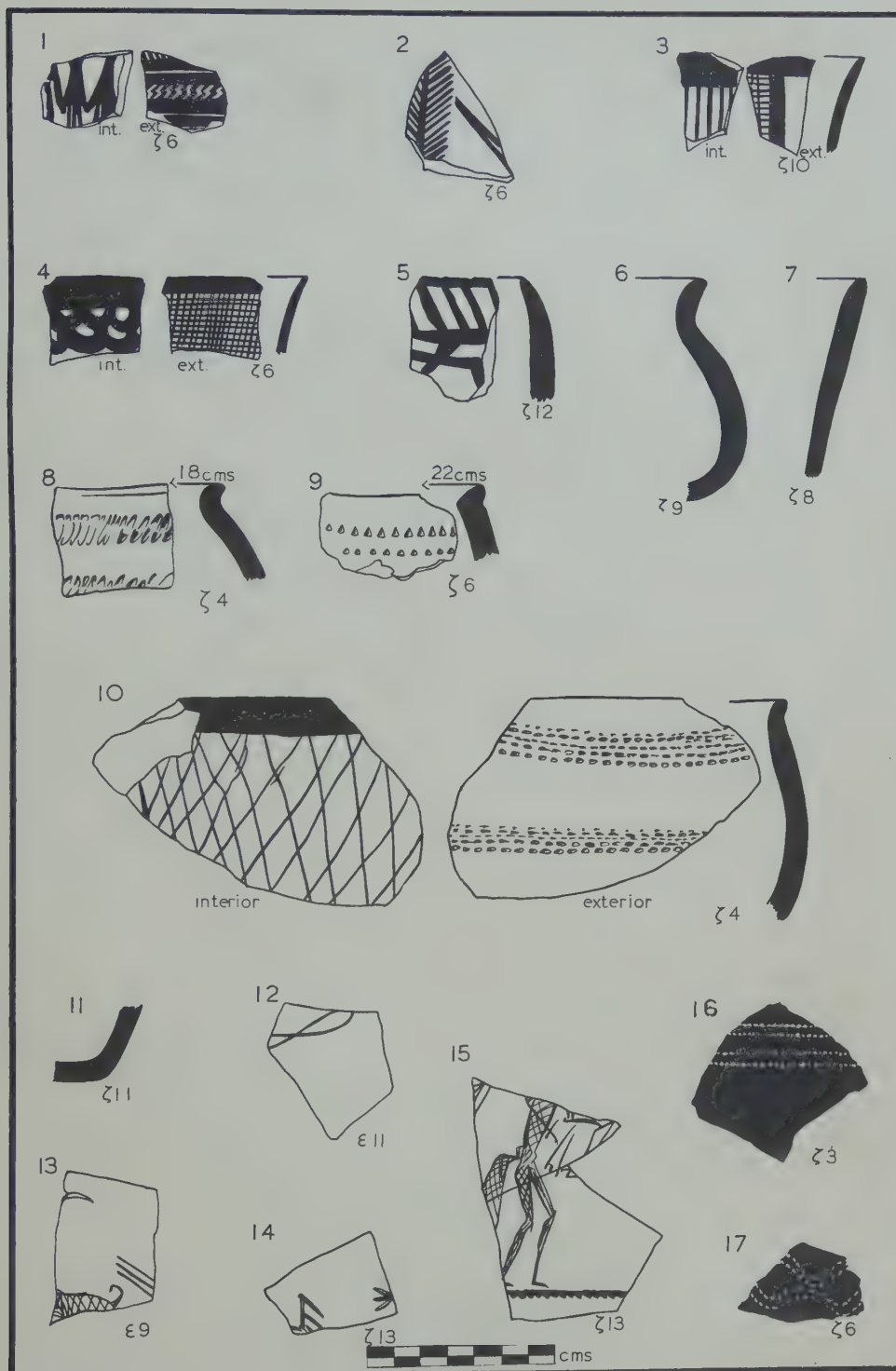
TYPES OF INCISED AND BURNISHED WARES, SHAPES, ETC. FROM THE BOTTOM OF TRENCH Z

SAKJE-GEUZI. PLATE XXV.

- 1 ζ 6 Buff ware, some very fine grits; cream slip int. and ext.; brownish painted dec., the colour of the paint varying in depth of tone from mid-brown to dark brown.
- 2 ζ 6 Buff ware, thin, few grits; wet-sm. int.; creamy slip ext.; dark-brown painted dec. ext.
- 3 ζ 10 Buff ware, fine grits; warm, cream slip int. and ext.; brownish painted dec.; the depth of tone varying, the band at top int. and ext. being almost black.
- 4 ζ 6 Light buff ware, thin; slip-sm. int. and ext.; possibly bnd. ext.; dec. brown paint, the colour varying from light brown to almost black.
- 5 ζ 12 Pinkish buff sandy ware; slip-sm. ext. and over rim int.; red lustrous painted dec.
- 6 ζ 9 Brownish ware, darker brown core; some large grits; wet-sm. int.; slip-sm. and possibly bnd. ext.
- 7 ζ 8 Greyish ware, varied grits; pink slip-sm. int.; red slip pebble bnd. ext. and over rim int.
- 8 ζ 4 Grey ware, core carbonised; wet-sm. int.; with lines bnd. before firing, making slight indentations int.; black slip-sm. ext. with excised ornament done before firing.
- 9 ζ 6 Buff ware, gritty; core carbonised; wet-sm. int.; dark-grey slip ext.; traces of burnishing; dec. excised before firing.
- 10 ζ 4 Buff ware, gritty, core carbonised; wet-sm. int., lines bnd. before firing in lattice pattern; dark grey bnd. slip ext.; punctuated dec.
- 11 ζ 11 Black ware, gritty; black bnd. slip int. and ext.
- 13 ε 9 Brownish ware, core carbonised; bnd. dark grey to brown int.; brownish grey bnd. slip ext.; incised dec.
- 12, 14, 15, ε 11, ζ 13, ζ 13. Brick ware, core carbonised; small white grits; brownish slip-sm. int.; yellowish grey bnd. slip ext.; incised dec.

Notes:

- No. 15. An apparently unique design. The human figure is known on Tell Halaf pottery and at Samarra. See also Chagar Bazar, Fig. 27, nos. 21-22, pp. 41, 42. This seems to represent a man with bow and arrows.
A fragment of an incomplete scene in no. 14 comes from the same level. No. 13 showing part of the back and tail of an animal comes from a higher level and the pottery seems to be different, being darker on both sides and also thicker.
- No. 16. Mr. Mallowan informs us that this sherd, together with specimens like 17, XXV, no. 12, and XXVII, 1, 2, 3, is to be classed with the earliest fabrics of NW. Syria, and to be compared with material from the earliest strata of Chagar Bazar. The design seems to be executed with a rocker, a technique practised on the very earliest fabrics of the Husn region of Northern Syria; cf. *Excavations at Tell Chagar Bazar*, 1934-35, Survey of the Husn, by M. E. L. Mallowan, Plates VIII-XVII, sherds found in Stratum 17 on virgin soil. Notice specially no. 12 with zigzag design done with a rocker; cf. also no. 10 on the same Plate.



SAKJE-GEUZI, 1911

PERIOD II

TYPES OF EXCISED, PUNCTUATED AND PAINTED WARES FROM STRATA 9 AND 10 IN TRENCH Z

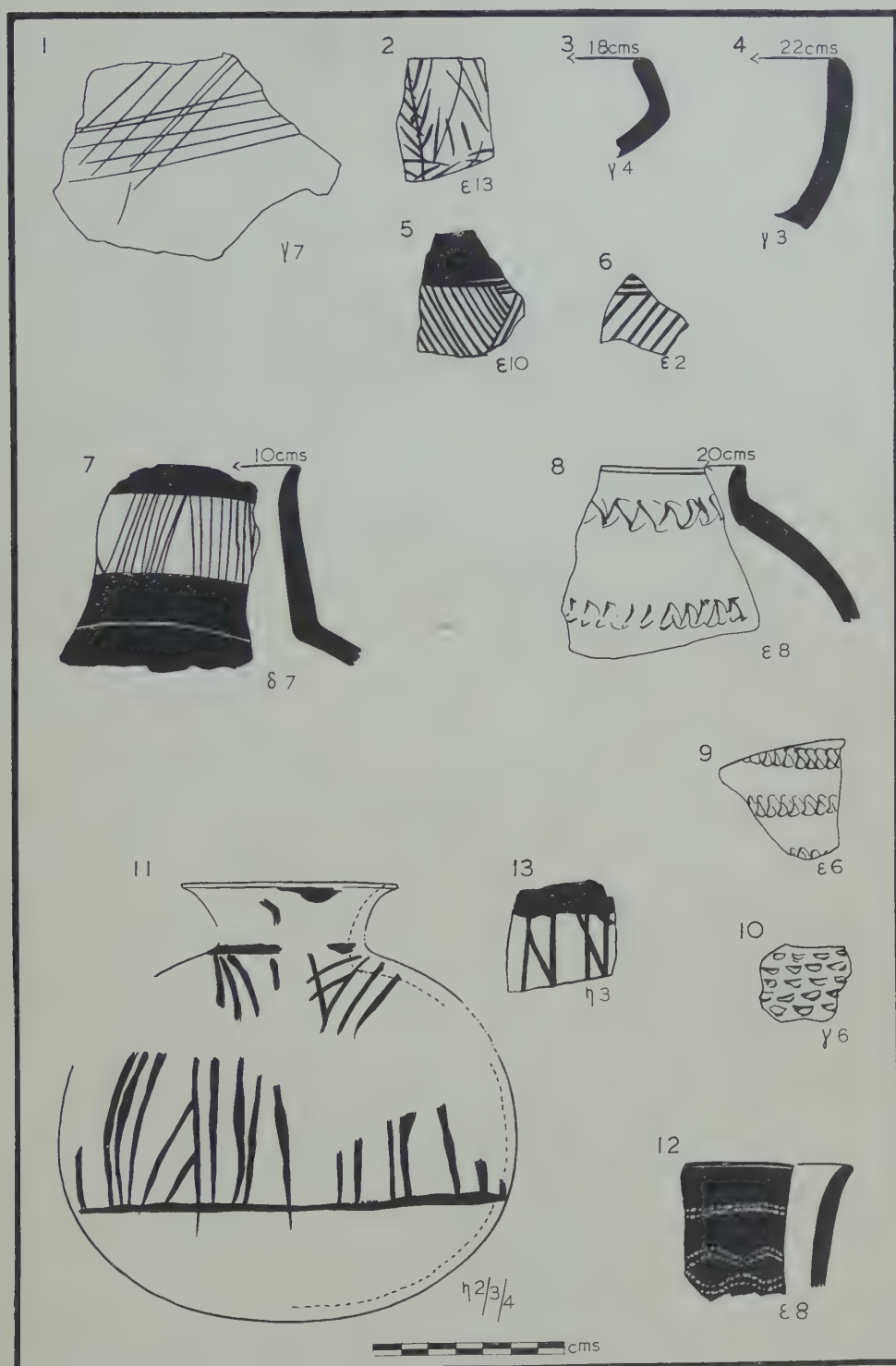
NOS. 1, 2, SAMARRA STYLES: NOS. 3, 4, EARLY TELL HALAF

SAKJE-GEUZI. PLATE XXVI.

- 1 γ 7 Grey ware, gritty ; roughly finished ; dec. incised lines.
- 2 ε 13 Brick ware, some grits ; wet-sm. int. ; light brownish bnd. slip ext. ; incised grass dec.
- 3 γ 4 Brick ware, some fine grits ; reddish slip int. and ext. ; possibly bnd. ext.
- 4 γ 3 Brownish ware, some fine grits ; brownish red bnd. slip int. and ext.
- 5 ε 10 Reddish bnd. slip int. and ext.
- 6 ε 2 Pinkish ware ; core carbonised ; some grits ; red slip ext. with bnd. lines.
- 7 δ 7 Greyish ware with black pattern burnishing ext.
- 8 ε 8 Grey ware, core carbonised, rough up to neck int. dark grey slip-sm. ext. and over rim where it becomes brownish.
- 9 ε 6 Grey ware, some fine grit, core carbonised ; wet-sm. int. ; dark-grey bnd. slip ext. ; excised dec.
- 10 γ 6 Brownish-grey ware with grits ; core carbonised ; brown slip ext. ; the decoration is jagged and not formed by excising.
- 11 η 2-3-4. Pinky-buff pottery, some fine grits ; exterior matt yellowish slip-washed surface with dull-red paint unevenly applied ; apparently not bnd. [Restored from numerous fragments and incomplete.]
- 12 ε 8 See Pl. XXV, no. 16.
- 13 η 3 Grey pottery, pinky slip int. and ext. ; red paint bnd. in patterns before firing, the tool making very slight indentations.

Notes :

- No. 7, also see Pl. XXXI, no. 1 ; cf. Chagar Bazar, 1934-35. Pl. III, no. 8, which is somewhat similar. The form is early Ninevite.
- No. 11 recalls vessels with crude geometrical designs from Arpachiyah of the Samarra period.



SAKJE-GEUZI 1911

PERIODS II—III

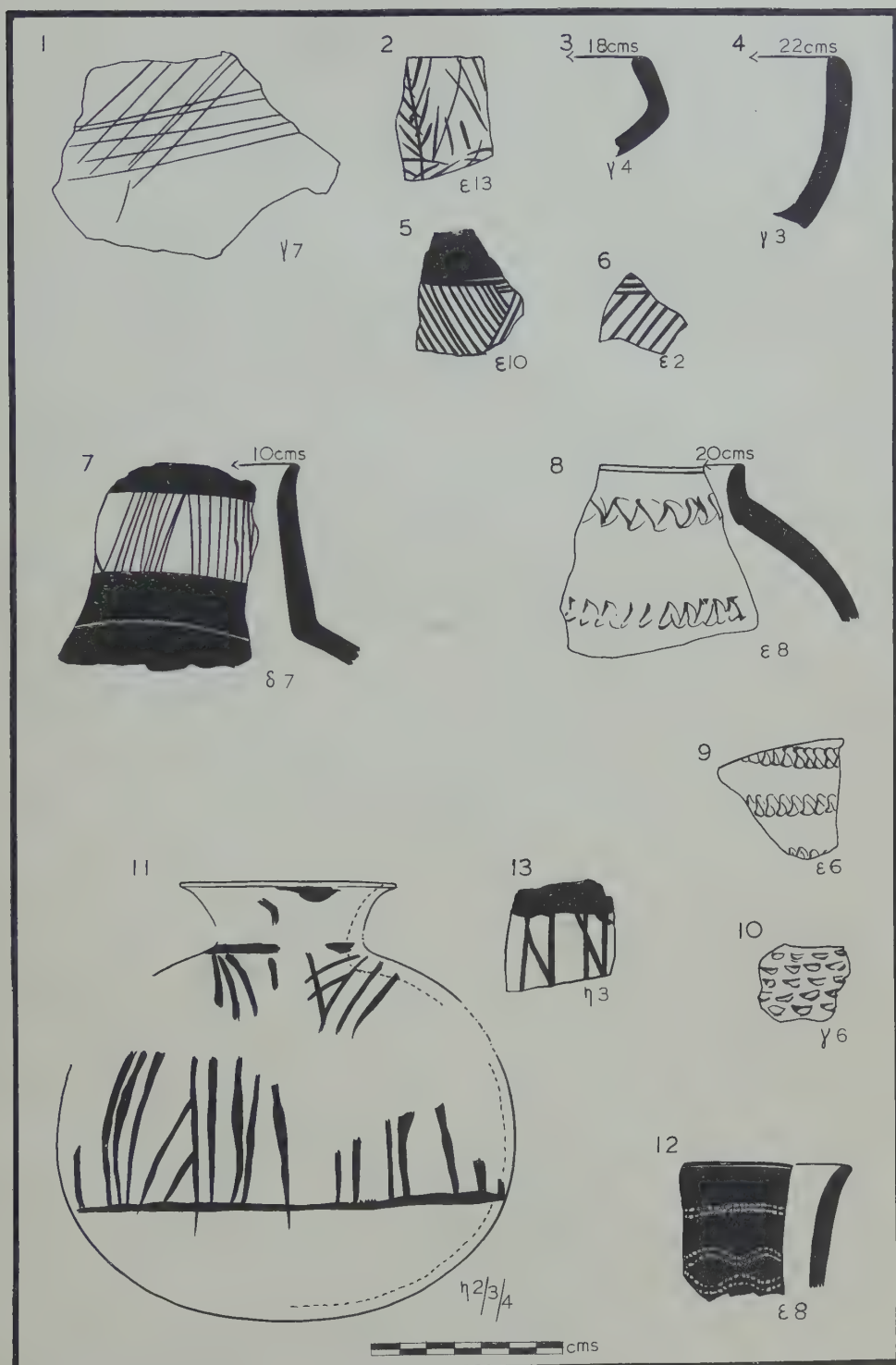
DECORATIVE MOTIFS FROM VARIOUS STRATA 11—17 IN TRENCH Z
(NO. 11 PROBABLY OF SAMARRA PERIOD II)

SAKJE-GEUZI. PLATE XXVI.

- 1 γ 7 Grey ware, gritty ; roughly finished ; dec. incised lines.
- 2 ε 13 Brick ware, some grits ; wet-sm. int. ; light brownish bnd. slip ext. ; incised grass dec.
- 3 γ 4 Brick ware, some fine grits ; reddish slip int. and ext. ; possibly bnd. ext.
- 4 γ 3 Brownish ware, some fine grits ; brownish red bnd. slip int. and ext.
- 5 ε 10 Reddish bnd. slip int. and ext.
- 6 ε 2 Pinkish ware ; core carbonised ; some grits ; red slip ext. with bnd. lines.
- 7 δ 7 Greyish ware with black pattern burnishing ext.
- 8 ε 8 Grey ware, core carbonised, rough up to neck int. dark grey slip-sm. ext. and over rim where it becomes brownish.
- 9 ε 6 Grey ware, some fine grit core carbonised ; wet-sm. int. ; dark-grey bnd. slip ext. ; excised dec.
- 10 γ 6 Brownish-grey ware with grits ; core carbonised ; brown slip ext. ; the decoration is jagged and not formed by excising.
- 11 η 2-3-4. Pinky-buff pottery, some fine grits ; exterior matt yellowish slip-washed surface with dull-red paint unevenly applied ; apparently not bnd. [Restored from numerous fragments and incomplete.]
- 12 ε 8 See Pl. XXV, no. 16.
- 13 η 3 Grey pottery, pinky slip int. and ext. ; red paint bnd. in patterns before firing, the tool making very slight indentations.

Notes :

- No. 7, also see Pl. XXXI, no. 1 ; cf. Chagar Bazar, 1934-35. Pl. III, no. 8, which is somewhat similar. The form is early Ninevite.
- No. 11 recalls vessels with crude geometrical designs from Arpachiyah of the Samarra period.



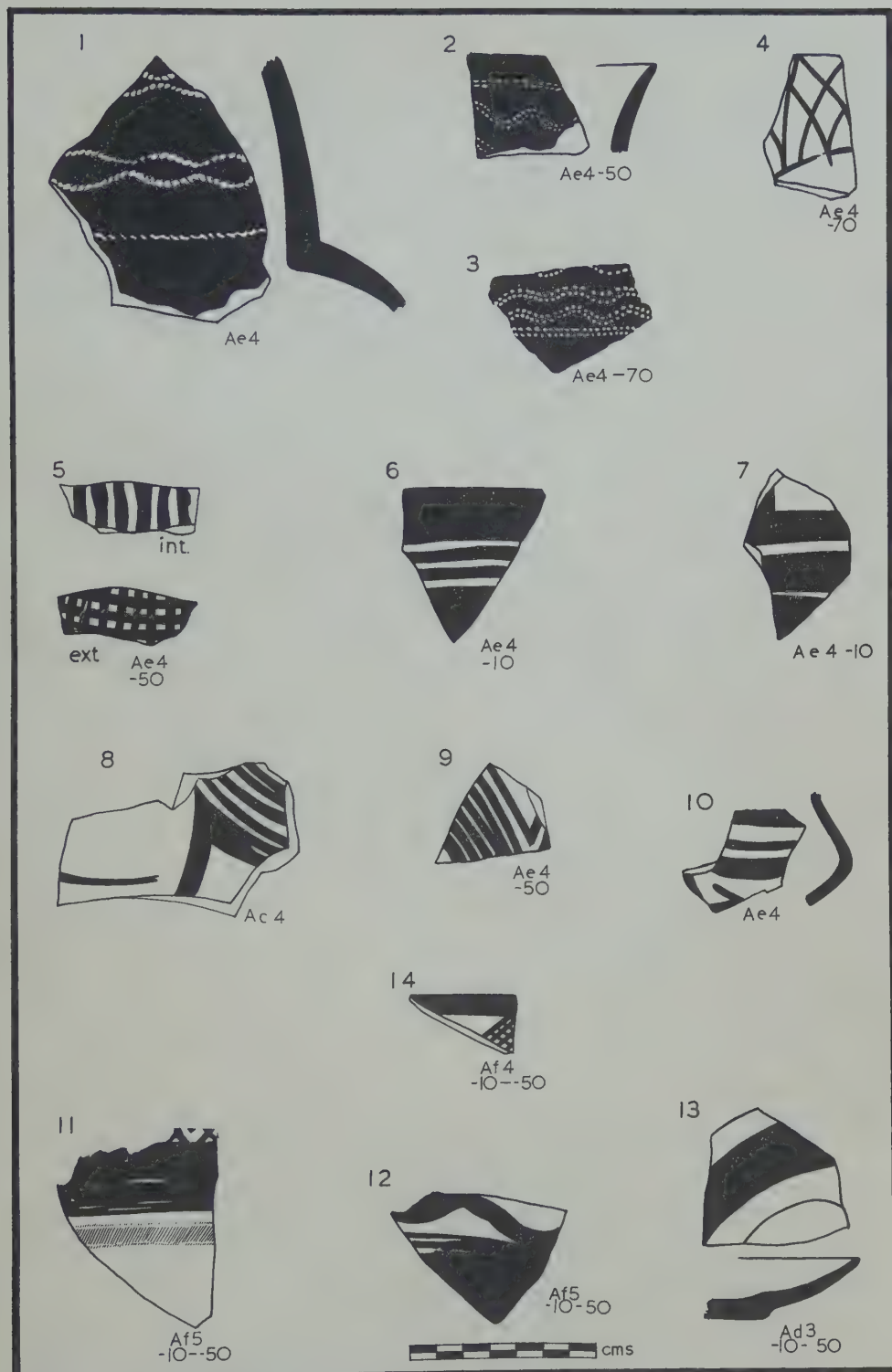
SAKJE-GEUZI 1911

PERIODS II-III

DECORATIVE MOTIFS FROM VARIOUS STRATA 11-17 IN TRENCH Z
(NO. 11 PROBABLY OF SAMARRA PERIOD II)

SAKJE-GEUZI. PLATE XXVII.

- 1* A e 4 Black bnd. ext. with rope pattern filled white.
- 2 A e 4 Dark grey ware; fine grits; black bnd. slip int. and ext.;
dec. *pointillé*. See XXV, no. 16.
- 3 A e 4 Dark grey pottery, some fine grits; black burnished slip
surface; whitened *pointillé* dec.
- 4* A e 4 Dark grey surface with burnished lines.
- 5 A e 4 Pinky-buff ware, some grits; yellowish slip int. and ext.
with dark-red painted dec.
- 6* A e 4 Whitish surface; greyish-brown painted dec.
- 7* A e 4 Whitish surface; dark-brown painted dec.
- 8* A e 4 Warm creamy surface; rich warm brown painted dec.
- 9 A e 4 Buff ware, some fine grits; wet-sm. int.; pinkish yellow slip
ext.; brownish-red painted dec. ext.
- 10 A e 4 Yellowish drab ware, few grits; creamy slip ext.; with very
dark-brown paint.
- 11 A f 5 Warm buff sandy ware; greyish core; wet-sm. int.; pinkish
slip-washed ext.; painted dec. varying in colour from pale
orange to dark brown, giving almost an impression of poly-
chrome.
- 12 A f 5 Brick ware, grey core, very fine grits; wet-sm. int.; pinkish
slip-washed ext. with painted dec. very unevenly applied and
varying from light to dark brown.
- 13* A d 3 Brick-coloured surface; brown painted dec.
- 14* A f 4 Warm creamy slip; dark-brown painted dec.



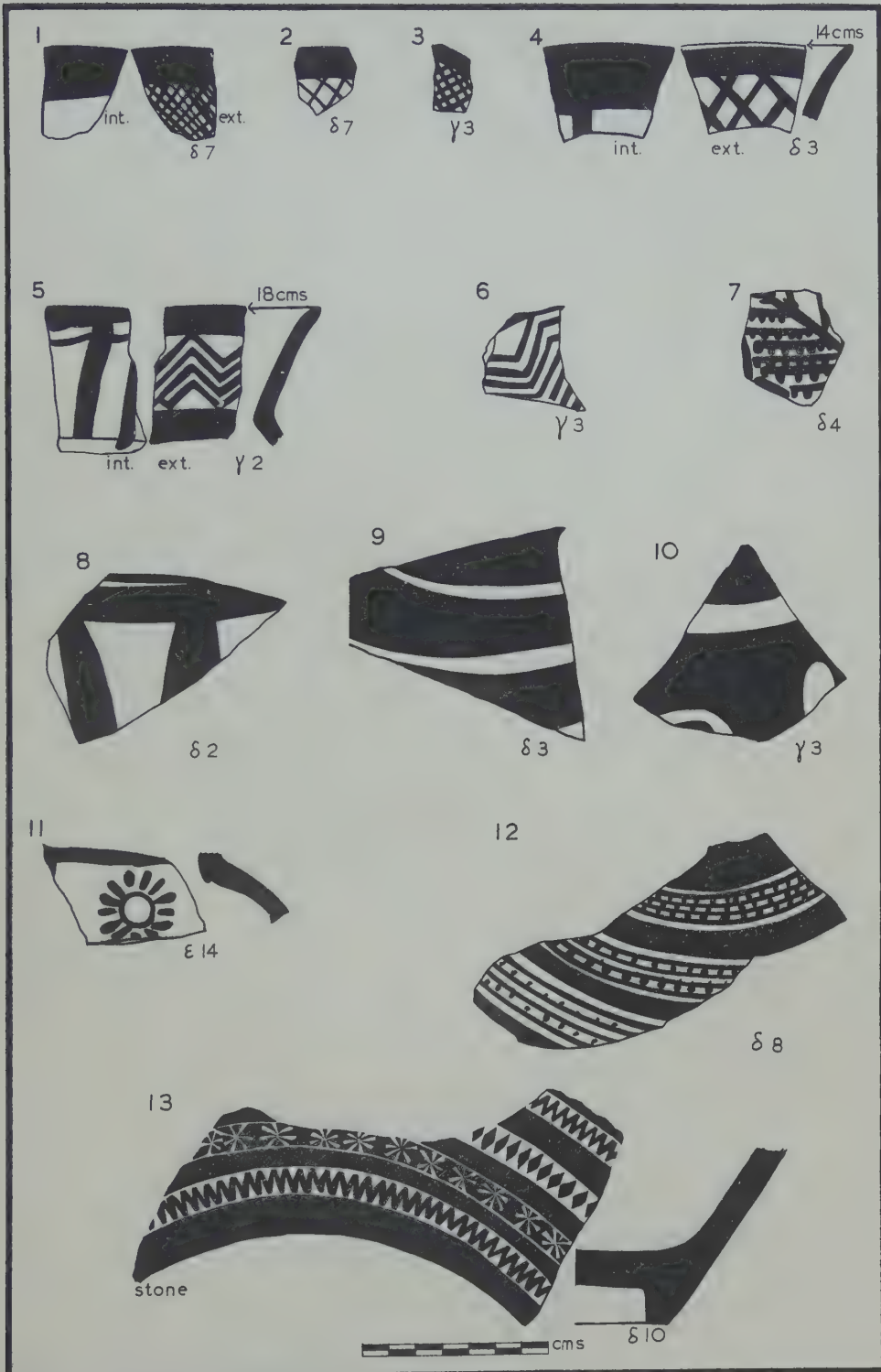
SAKJE-GEUZI. PLATE XXVIII.

- 1 δ 7 Grey gritless pottery ; pale yellow slipped surface ; greenish-brown to black painted dec.
- 2 δ 7 Pale brown pottery with some grits ; drab slip wash int. ; drab slip ext. with black painted dec. and over rim int.
- 3 γ 3 Grey gritless pottery ; yellow slip ext. ; painted int. and ext.
- 4 δ 3 Warm buff ware ; fine grits ; grey core ; warm yellowish slip int. and ext. ; dark-reddish brown painted dec.
- 5 γ 2 Pink ware ; almost gritless ; pinky-yellowish slipped surface ; dec. brownish red matt paint.
- 6 γ 3 Buff gritty ware ; red core : wet-sm. int. ; creamy slip ext. ; dark-brown painted dec.
- 7 δ 13 Light brown ware ; very fine grits ; wet-sm. int. ; warm buff slip ext. ; black painted dec. (On Plate marked δ 4 in error.)
- 8 δ 2 Grey pottery, fine grits ; grey slip-washed ext. brown painted dec. not uniformly applied, the upper band varying in depth of colour.
- 9 δ 3 Pinkish drab ware ; grey core ; slip-sm. int. ; light pinkish slip ext. with red painted dec. possibly bnd.
- 10 γ 3 Drab coarse ware, fine white grits ; wet-sm. int. ; greyish-yellow slip ext. with black painted dec.
- 11 ε 14 Warm drab ware ; grey core ; white grits ; wet-sm. int. pinky slip ext. ; black painted dec.
- 12 δ 8 Pinky clay almost gritless ; slipped surface dec. with warm red paint.
- 13 δ 10 Fragment of stone vessel (Chlorite) finely decorated in Tell Halaf style. In the 1st, 2nd and 4th bands the pattern is reserved flush with the surface with the background counter-sunk. In the 3rd band (rosettes) the *motif* is incised.

Note.—No. 13. Chlorite was a rock frequently used for carving in the Tell Halaf period at Arpachiyah, and the decoration has stylistic resemblances with painted pottery from that site ; *e.g. Arp.*, fig. 67, nos. 1, 2, of which the first has all the decorative elements except the zigzag, which is represented in the second.

Although stone bowls are common at Tell Halaf, decorative designs are wanting though excellent carving in stone was done at this period, *e.g. Arp.*, Pl. VI a. One may also compare the early stone bowls from Uruk, though the resemblance is not close.

For these references we are indebted to Mr. Mallowan.



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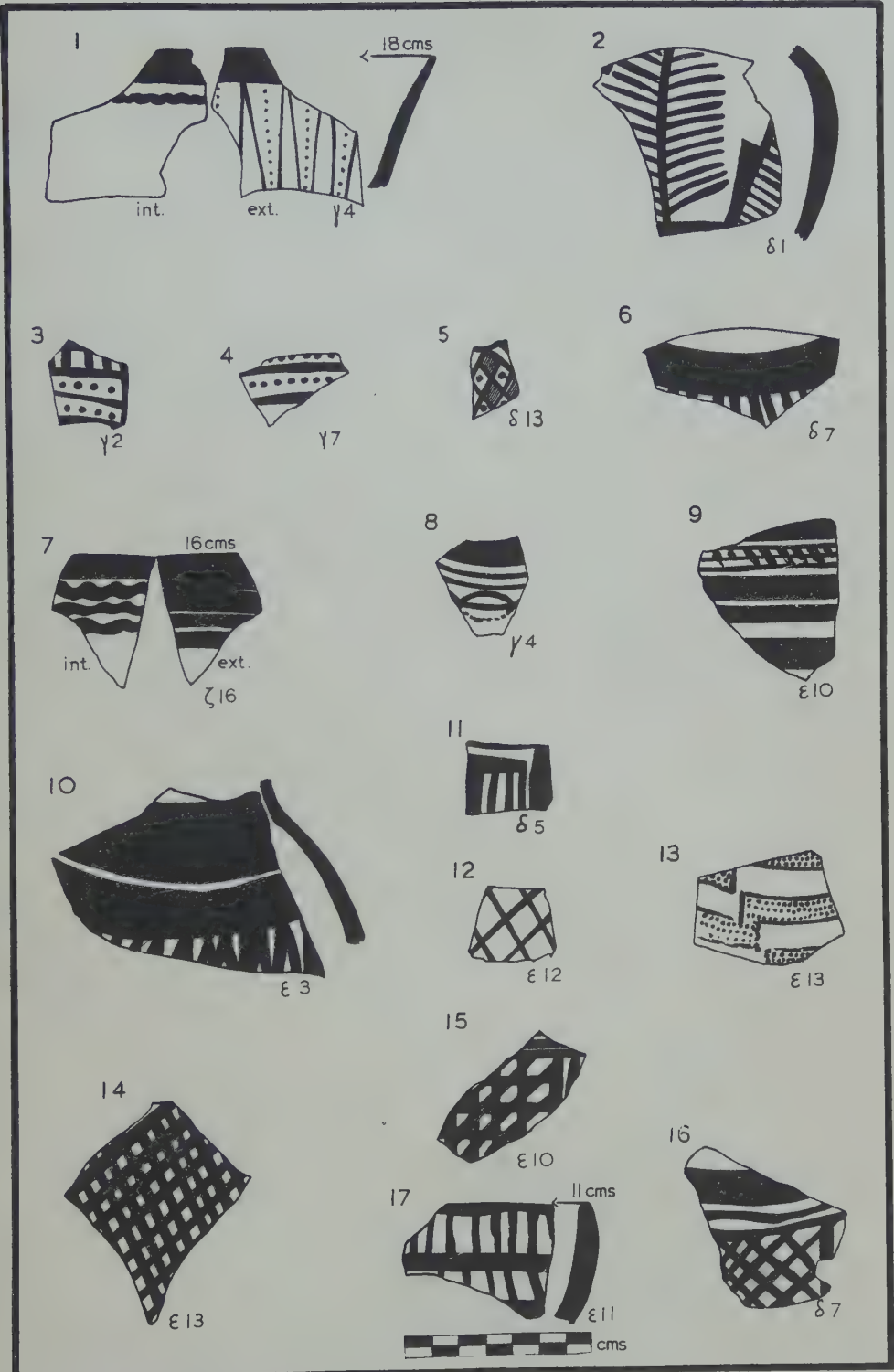
PERIOD III

PAINTED WARES AND A STONE VASE FROM THE UPPER STRATA 6-7 OF TRENCH Z

FRAGMENT NO. 12 FROM STRATUM 8

SAKJE-GEUZI. PLATE XXIX.

- 1 γ 4 Buff ware, sandy ; wet-sm. int. and ext. ; dec. int. and ext.
with dark brownish to black paint.
- 2 δ 1 Buff ware ; some fine grits ; buff slip ext. with painted dec.
brown to black
- 3* γ 2 Pinky surface ; brown painted dec.
- 4* γ 7 Light drab surface ; brown painted dec.
- 5* δ 13 Pinky surface ; reddish paint unevenly applied, giving an effect
of two colours.
- 6 δ 7 Light brick ware, fine grits ; drab to outer surface ; yellowish
slip ext. black painted dec.
- 7 ζ 16 Light brick ware, fine grits ; buff slip int. and ext., reddish to
brown paint unevenly applied.
- 8 γ 4 Reddish ware, fine grits ; pinkish yellow slip ext. with reddish
to brown painted dec.
- 9 ε 10 Buff gritty ware ; wet-sm. int. ; slip-sm. ext. with brown dec.
rather worn.
- 10 ε 3 Pinky ware, some grits ; pinkish slip ext. with red painted
dec. ; possibly bnd.
- 11 δ 5 Drab surfaces ; brown painted dec.
- 12 ε 12 Reddish ware with grits ; slip-sm. ext. ; black painted dec.
- 13 ε 13 Warm drab ware with fine grits ; warm buff slip ext. ; light to
dark-brown painted dec.
- 14 ε 13 Drab sandy ware ; slip-sm. int. ; whitish slip ext. ; black
painted dec.
- 15 ε 10 Reddish coarse gritty ware ; buff core ; warm cream slip ext. ;
dark warm rich brown painted dec.
- 16 δ 7 Brownish drab gritty ware ; pinkish yellow slip ext. with
unevenly applied brown paint worn to orange in places.
- 17 ε 11 Brick ware, gritty slip-sm. int. with red painted dec. much
worn ; pinky slip ext. with red bnd. dec.



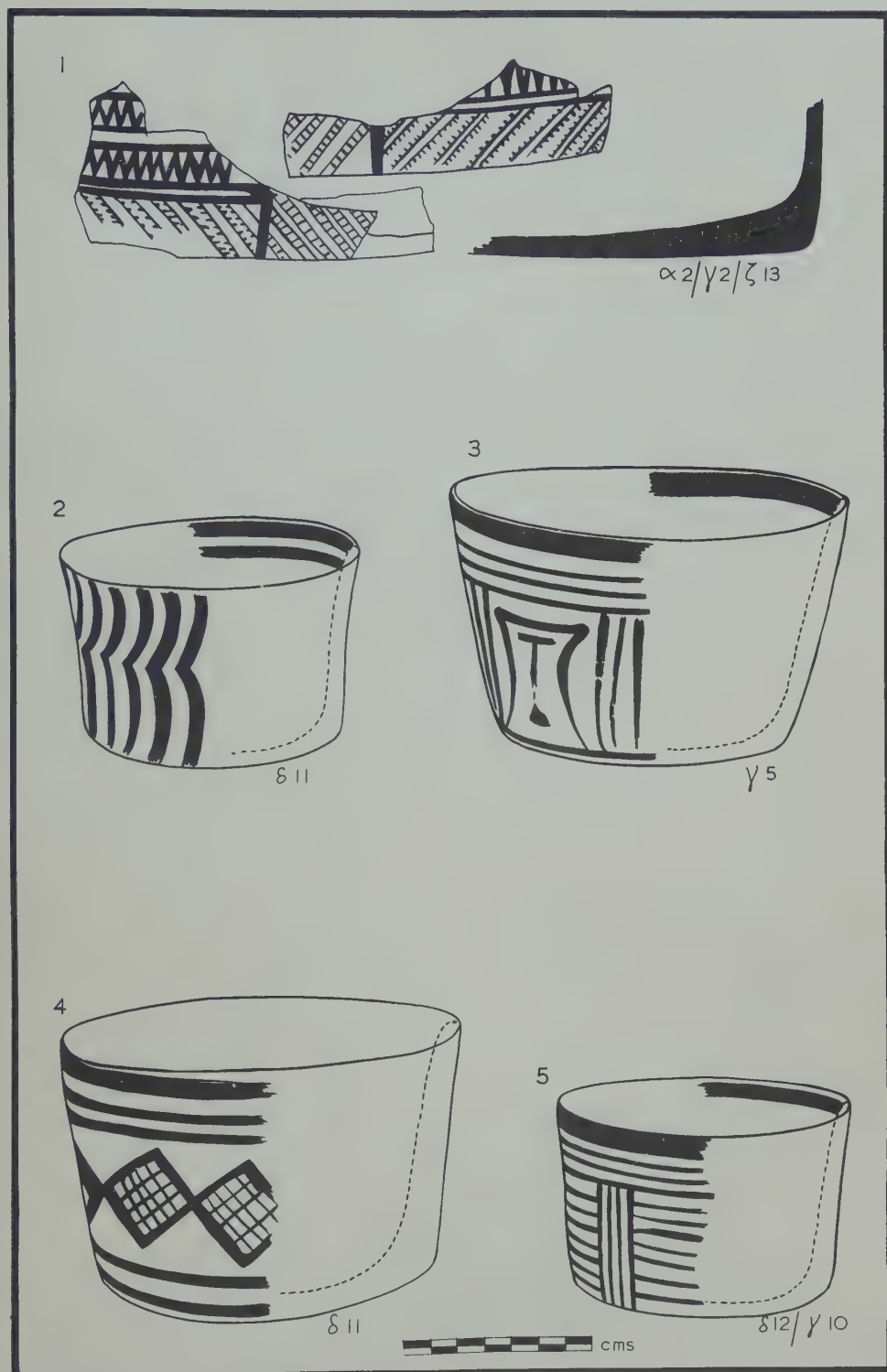
SAKJE-GEUZI. PLATE XXX.

VESSELS OF TEL HALAF STYLE.

- 1 α 2, γ 2, ζ 13. Pinky ware; buff core; fine white grits; painted dec. ext. varying in colour from pale orange pink to black. That on one side of the vessel is consistently darker than the other.
- 2 δ 11 Pinkish buff surface with dark-brown painted dec.
- 3 γ 5 Pinkish buff surface; reddish-brown painted dec.
- 4 δ 11 Whitish buff surface; grey-brown painted dec.
- 5 γ 10, δ 12. Pinkish surface with warm brown to dark-brown painted dec.

Notes :

- No. 1. The form of the vessel is characteristic of Tell Halaf. Oval in shape with shallow sides, it also occurs, as Mr. Mallowan has shown, at Arpachiyah, where it is sometimes decorated on the underside, suggesting that it could be turned upside down and used as a small table.
- Nos. 2, 3, 4, 5 are drawings made from restorations from fragments in the Liverpool Public Museums and are partly conjectural.



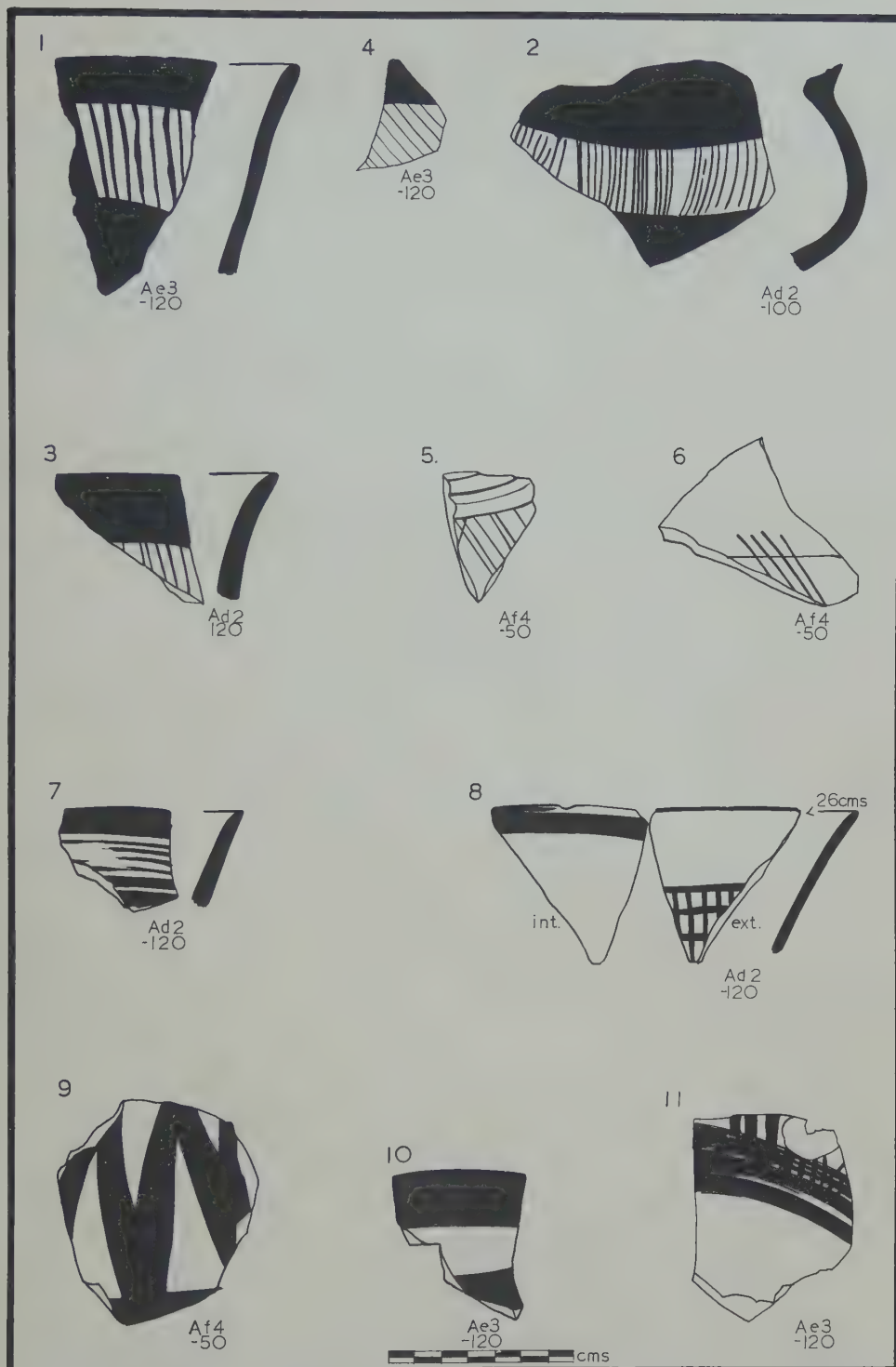
SAKJE-GEUZI, 1911

PERIOD III

TENTATIVE RESTORATIONS OF FOUR POTTERY BASINS FROM TRENCH Z
(THE SYMMETRY AND CONTINUATION OF THE PATTERNS ARE UNCERTAIN)

SAKJE-GEUZI. PLATE XXXI.

- 1 A e 3 Brownish grey ware ; black surfaces int. and where bnd. ext.
- 2 A d 2 Greyish ware, fine grits ; grey slip ext. with darker grey dec. ; possibly bnd., but now dull.
- 3 A d 2 Brownish drab ware ; some grits ; dark grey-brown slip-sm. int. ; lighter greyish-brown slip with bnd. dec.
- 4 A e 3 Buff ware, some grits ; buff slip ext. with dark brown bnd. dec. the lines being exceedingly fine.
- 5* A f 4 Grey surface with black dec.
- 6* A f 4 Grey surface ; light below the horiz. line and dark above it ; black oblique line dec.
- 7 A d 2 Light drab ware ; whitish yellow slip int. and ext. ; dark-brown painted dec. int. and ext., the narrow bands being very pale.
- 8 A d 2 Warm buff ware, fine grits ; pinkish slip-sm. int. and ext.
- 9 A f 4 Reddish ware, some very fine grits ; wet-sm. int. ; drab slip ext. with dark-brown painted dec.
- 10 A e 3 Pinky ware, some grits, grey core ; slip-sm. int. and ext. ; reddish painted dec. ext. and over rim int.
- 11* A e 3 Warm buff surfaces ; red painted dec. unevenly applied, the horiz. band being pale and the vert. darker over it.



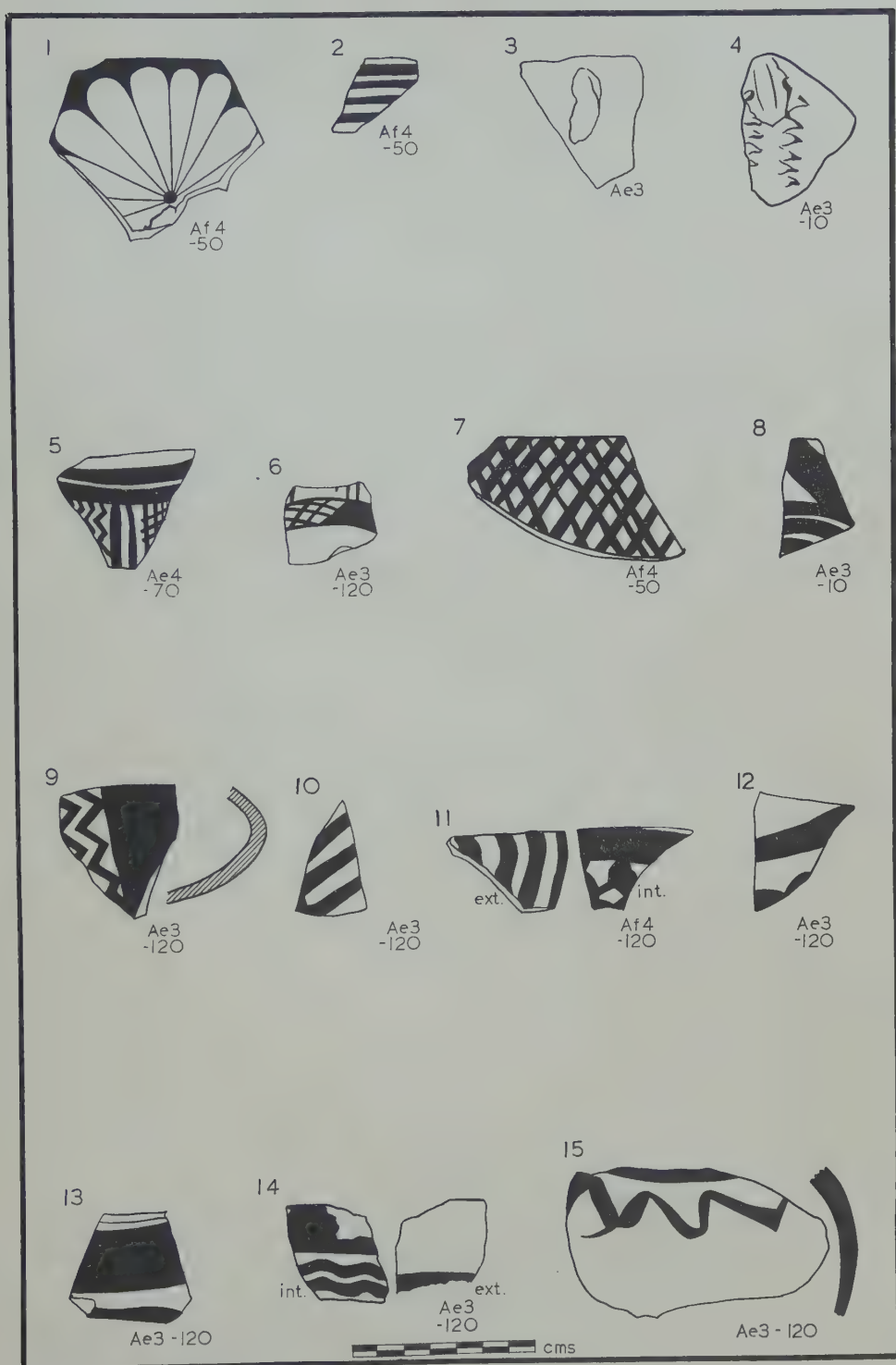
SAKJE-GEUZI, 1908

PERIOD III

BURNISHED AND PAINTED FRAGMENTS FROM THE UPPER STRATUM OF TRENCH A

SAKJE-GEUZI. PLATE XXXII.

- 1 A f 4 Buff ware, fine grits; thin pottery; well-drawn painted rosette in brown to purple paint ext.; band of paint int. with two rows of loop pattern lighter colour and worn.
- 2 A f 4 Brownish ware; reddish core; much white grit; buff slip-sm. ext. with black painted dec.
- 3 A e 3 Grey ware, rather coarse; gritty dark grey slip ext. traces of burnishing; roughly made knob.
- 4 A e 3 Grey ware, gritty; dark grey slip-sm. ext.; with excised dec.
- 5 A e 4 Drab ware; wet-sm. int.; buff slip ext. with brown painted dec.
- 6* A e 3 Brick surface; dark-brown painted dec.
- 7* A f 4 Pinkish surface; dark-brown painted dec.
- 8* A e 3 Yellowish surface, light-brown painted dec.
- 9 A e 3 Buff ware; gritty; wet-sm. ext.; dec. brown to black paint.
- 10* A e 3 Light pinky-buff surface; brown painted dec.
- 11 A f 4 Drab ware; gritty; pinky-yellow slip-sm. int. and ext.; dark-brown painted dec.
- 13* A e 3 Whitish-pink surface with reddish painted dec.
- 14 A e 3 Buff ware; fine grits; drab slip with dark-brown painted dec. int., warm buff slip ext.; light-brown painted dec.
- 15 A e 3 Brick ware, grey core; mixed grits; pinky slip-sm. ext.; brown painted dec.



SAKJE-GEUZI, 1908

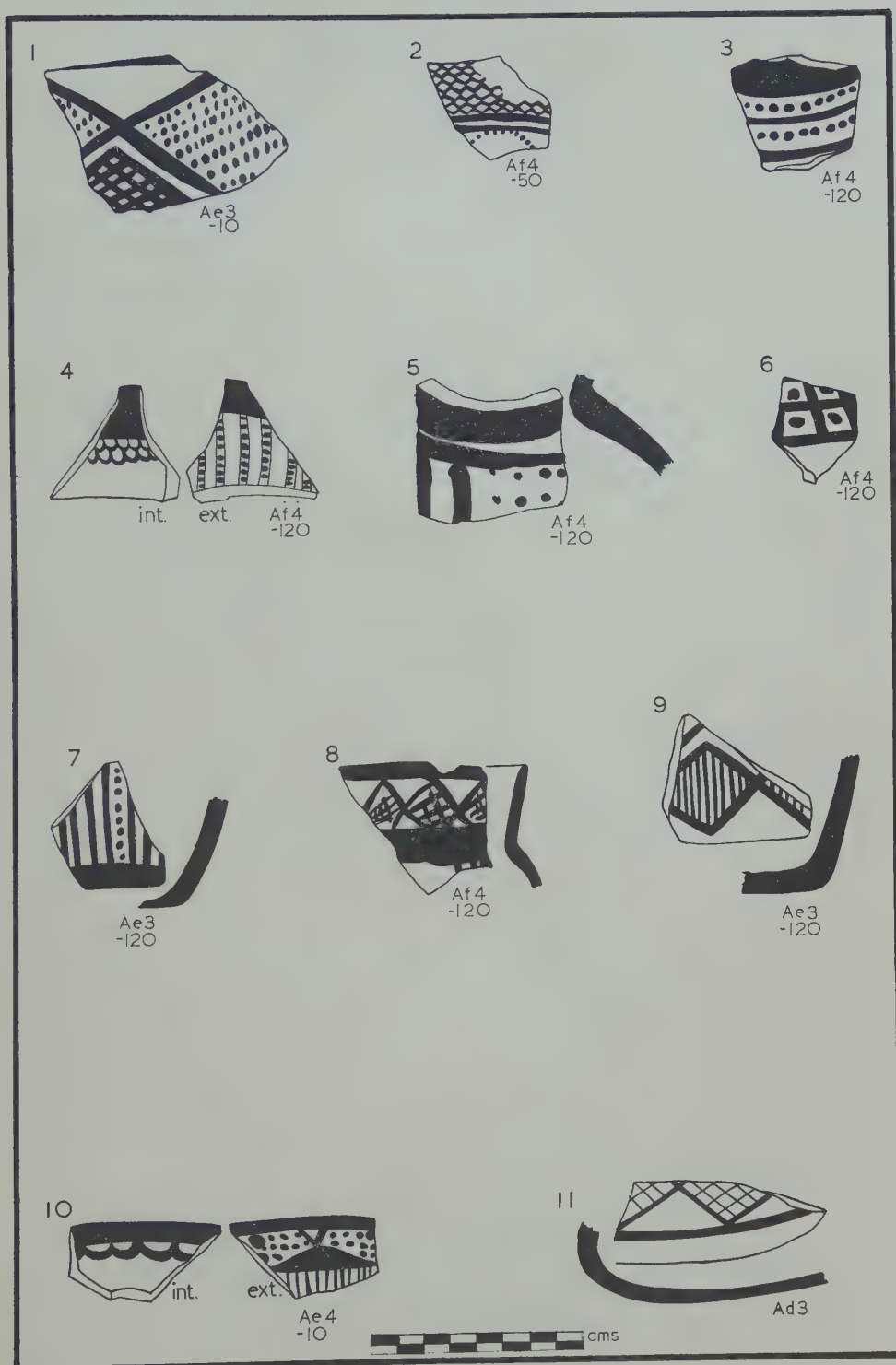
PERIOD III

PAINTED POTTERY FRAGMENTS FROM THE UPPER STRATA OF TRENCH A

SAKJE-GEUZI. PLATE XXXIII.

- 1 A e 3 Red gritty ware; wet-sm. int.; red slip-sm. ext.; black painted dec.
- 2 A f 4 Pink ware, grey core, very fine grits; wet-sm. int.; creamy-white slip ext. with black lustrous paint.
- 3 A f 4 Warm buff ware, white grits; wet-sm. int.; slip-sm. ext.; dark-brown painted dec.
- 4 A f 4 Light brownish ware, white grits; slip-sm. int. and ext.; painted dec., the bands at top int. and the dots ext. almost black, the loop design int. brown to dark brown; the fine lines ext. orange brown.
- 5 A f 4 Light brownish ware, white grits; wet-sm. int.; buff slip-sm. ext. dark-brown painted dec.
- 6 A f 4 Drab ware, white grits; slip-sm. int. and ext.; dec. brown painted loop pattern int.; dark-brown painted dec. ext.
- 7* A e 3 Pinky-white surfaces with pale-brown painted dec.
- 8 A f 4 Pinky-buff ware; very fine grits; pinky-buff slip-sm. int. and ext.; light reddish-brown painted dec. unevenly applied and showing brush strokes.
- 9 A e 3 Drab ware with grits; wet-sm. int.; drab slip ext. with brown to dark-brown painted dec.
- 10 A e 4 Light buff clay; fine sandy grits; wet-sm.; brown to very dark-brown painted dec. int. and ext.
- 11* A d 3 Creamy buff surface; greyish painted dec.

Note.—No. 10. The design may be compared with the so-called 'Centipede' motive of Tell Halaf (von Oppenheim: Tell Halaf, LIII, No. 1). It is found also at Arpachiyah, but Mr. Mallowan has doubts as to the origin of the design.



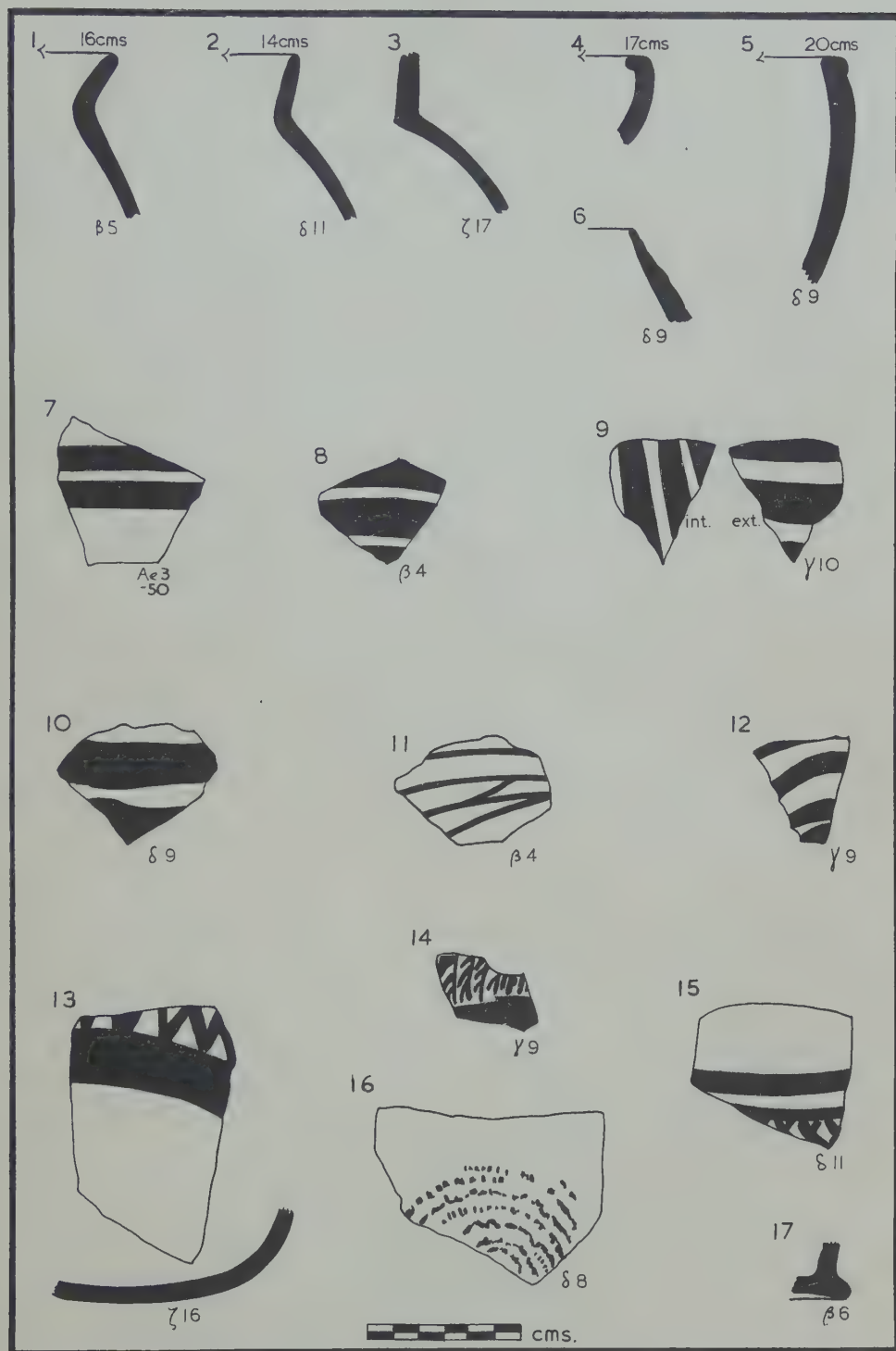
SAKJE-GEUZI, 1908

PERIOD III

PAINTED STIPPLE MOTIFS FROM THE UPPER STRATUM OF TRENCH A

SAKJE-GEUZI. PLATE XXXIV.

- 1 β 5 Coarse brown ware ; gritty ; core carbonised ; brown surfaces ;
smoothed with grass diagonally ext.
- 2 δ 11 Buff ware ; fine grits ; self-slipped ext.
- 3 ζ 17 Drab ware ; mixed grits ; greenish yellow slip ext. ; with
traces of brown paint.
- 5 δ 9 Coarse red ware, gritty ; core carbonised ; red slip-washed
int. and ext.
- 6 δ 9 Red ware, mixed grits ; red roughly-burnished slip int. and ext.
- 7 Ae3 Brick ware, gritty ; pinky slip-sm. ext. ; brown painted dec.
- 8 β 4 Drab ware, greyish core ; drab slip ext. with brown to black
paint unevenly applied.
- 9 γ 10 Red ware, some grits ; pinky slip with red paint ; bnd. int.
and ext.
- 10 δ 9 Drab gritty ware ; drab slip-sm. ext. ; purplish-brown painted
dec.
- 11 β 4 Dark grey gritty ware ; wet-sm. ext. ; lines matt bnd. ext.
before firing, the tool making very slight indentations.
- 13 ζ 16 Pinky ware, grey core ; pinky slip ext. ; possibly bnd. ; reddish
brown painted dec.
- 14 γ 9 Brick ware ; pinky slip ext. with brownish indistinct dec.
- 15 δ 11 Drab ware, some grits ; drab slip-sm. ext. with brownish to
dark-brown painted dec. unevenly applied.
- 16 δ 8 Drab ware, gritty, core carbonised ; wet-sm. int. ; rough ext. ;
mat impression on base.
- 17 β 6 Coarse grey ware, gritty ; grey to brownish surfaces.



SAKJE-GEUZI, 1911

PERIOD IV

SELECTED POTTERY FRAGMENTS ALL FROM THE LATE HITTITE LEVEL IN TRENCH Z. EXCEPT
No. 7 WHICH IS FROM TRENCH A

SAKJE-GEUZI. PLATE XXXV.

- 1 Jobba. Hittite floor, near drain. Red brick ware; white grits; wet-sm. int.; light pinky-cream slip ext.; dark and light brownish painted dec.
- 2 Jobba Palace (corner). Red brick ware; white grits; wet-sm. int.; buff slip-sm. ext.; black painted dec.
- 3 Jobba Palace. Brownish ware; some grits; core carbonised; wet-sm. int.; cream slip ext.; with light to dark-brown painted dec. (griffin).
- 4 Jobba Palace. Buff ware; fine white grits; wet-sm. ext. with light red painted dec.
- 5* Jobba Palace. Warm buff surfaces; dec. bands of orange and dark brown. [Restored.]
- 6* Jobba. Pinkish surface; red painted dec.
- 7 Jobba Palace. Red brick ware; coarse, sandy; wheelmade; thick bnd. white slip ext. leaving pattern in reserve.
- 8 Jobba Palace. Reddish sandy ware; white grits; pale buff slip ext.; possibly bnd. black painted dec.
- 9 Jobba. Red brick ware; grey core; wet-sm. int.; darkened red thick slip ext.; possibly bnd.; black stippled dec.
- 10* Jobba. Pinkish surface; brown painted dec.
- 11* Jobba Palace. Drab surface; dark-brown painted dec.
- 12 δ 12, δ 10, ε 14. Brown to grey ware, the colour varying according to the thickness of the pot; hand-made; dull warm greyish slip ext. with black painted dec. which is also inside the neck.



Jobba. Hittite floor



Jobba. Palace



Jobba Palace



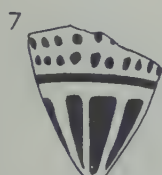
Jobba Palace



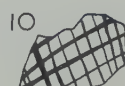
Jobba Palace



Jobba



Jobba Palace
N.W.



Jobba



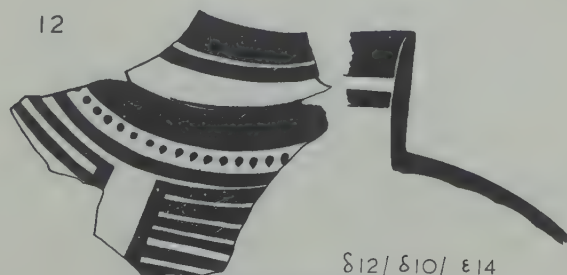
Jobba Palace



Jobba



Jobba Palace



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SAKJE-GEUZI, 1908-1911

PERIOD IV

POTTERY FRAGMENTS MOSTLY FROM THE LATE HITTITE PALACE AREA ON JOBBA HÜYÜK
No. 5. IS RESTORED AND No. 12 IS FROM TRENCH Z.

THE SITING OF GREEK COLONIES ON THE BLACK SEA COASTS OF BULGARIA AND ROMANIA

By G. A. SHORT

WITH PLATE XXXVI

THE Greek colonies here considered are seven in number,¹ all situated within the present frontiers of Bulgaria and Rmania. If the coast were a straightforward bow without any capes or inlets, the distance between Apollonia, the colony nearest to Turkey, and Tyras, on the Dniester Liman, the Rmanian-Soviet Russian frontier, would be under 300 miles, or less than the distance from London to Berwick-on-Tweed.

The names, ancient and present-day, of these seven places are given in geographical order in the following table, together with the city from which the first settlers came.

<i>Ancient Name.</i>	<i>Present Name.</i>	<i>Home of Settlers.</i>
1. Apollonia (Pontika).	Sozopol.	Miletos.
2. Mesambria.	Nesebŭr.	Megara.
3. Odessos (Bulgar-Romanian frontier).	Varna.	Miletos.
4. Kallatis.	Mangalia.	Herakleia Pontika.
5. Tomis.	Constanța	Miletos.
6. Histria.	(abandoned).	Miletos.
7. Tyras.	Cetatea Albă.	Miletos.

Excavations revealing potsherds of a period round about the foundation-dates provided by the ancient written sources have been made only at Apollonia, Histria and Tyras. I am indebted to Mr. R. M.

1. This study is based on observations made in 1935. I am indebted to many scholars in England and abroad for help in this and other investigations. Dr. M. Cary and Mr. S. Casson obliged me by reading this study in its final stages.

Cook for his opinion that the early pottery, mostly unpublished, from Apollonia and Histria belongs to the closing years of the VIIth century B.C. I have not seen the early unpublished pottery from Tyras; it is said to belong to 'the VIIth century B.C.' (Parvan, V., in his article 'La pénétration hellénique et hellénistique dans la vallée du Danube' in *Bulletin de la section historique: Académie roumaine*, vol. X (1923), p. 23, n. 5, reporting statement of the Russian excavator, B. Warneke).

In the poem of (pseudo-) Skymnos is the literary evidence, awaiting archaeological test, for three of the remaining colonies. It suggests foundation-dates as follows :—

Mesambria . . .	Last years of VIth century B.C.
Odessos . . .	End of 1st quarter of VIth century B.C.
Kallatis . . .	Last quarter of VIth century B.C.

There is no evidence available for Tomis, but the fact that it was a Milesian colony would put it in the same general period as Apollonia, Odessos, Histria and Tyras.

Hence this study is concerned with five colonies from the Ionian colonising city of Miletos and with two Dorian foundations, one from Megara and the other from Herakleia Pontika, on the south coast of the Black Sea. No foundation-date can be placed higher than the VIIth century B.C., and the two places which give narrowly dated archaeological evidence (Apollonia and Histria) come at the end of that century. The colonies thus come in the second part of the colonising phase of Greek history. They do not represent the sum-total of Greek settlements on this coast. There were a number of other Greek places, some of them unknown to written history and so far known only by the presence of potsherds. But the seven colonies named above were the first choices, and so they can supply evidence of what kind of site the Greeks picked while there was opportunity to choose the best.

Apollonia.—Approaching Sozopol from the harbours nearer to Turkey, the 350-ton coasting-steamer passes a succession of headlands, with bays of various sizes sweeping landwards between them. The headlands are rocky and broken, the sea around them strewn with reefs, but some bays have sandy beaches not backed by cliffs; it is as if the sea has eaten through a line of rocks and bitten into the unprotected land.

The last headland before Sozopol is at one end of such a bay and the peninsula on which Sozopol stands is at the other; within the bay near Sozopol, a small headland still survives, thus making the bay into an irregular W.

But the steamer does not put into this seemingly tempting bay. The houses of the town come nearer and finally the headland is passed by. In fact, the course is a wide semi-circle, for the steamer does not even go straight down the further side of the peninsula as far as the breakwater joining the town with the island of St. Kirik; this island is sailed round before anchor is dropped.

This manœuvre at once raises the question of the harbourage of Apollonia. For a harbour on the west coast of the Black Sea to be reasonably safe, it must be protected against heavy seas on the north and east. Here is the defect of the bay which both from sea and land looks such an ideal harbour, especially as the Sozopol peninsula does not run straight out but bends slightly round.¹ On the other hand, the place where the steamer puts in and waits for little boats to come out to it is protected by islands—notably St. Kirik and St. John, with St. Peter lying further out. The result is a tolerably good harbour, helped greatly by the post-war breakwater joining St. Kirik with the peninsula. Without the breakwater a winter storm made things difficult—but as the winter was a close season for ancient navigation the Greeks would be satisfied with the advantages of the harbour in seas which might be unpleasant but not continually stormy.

There is, however, an ancient report of two large λιμένες (Anonymi: *Periplus Ponti Euxini*, 85)—ἔχουσιν καὶ λιμένας μεγάλους δύο. Translate 'harbours,' as is usual, and there is the rather dangerous conclusion to be drawn that a sailing book is talking nonsense. It is certainly possible for an ancient sailing book to be mistaken; but to reject such testimony off-hand just because it is not easy to understand is a policy of despair. It would be more justifiable to suspect a mistake if the authority was a mere landlubber who had seen ships loading and unloading in the water protected by St. Kirik and called this Harbour No. 1, and had also been attracted by the appearance of the bay on the other side and called it Harbour No. 2.

Now, though at the start of its career λιμὴν was used in contrast

1. Lehmann-Hartleben, K., 'Die antiken Hafenanlagen des Mittelmeeres' (*Klio*, Beiheft XIV, 1923), p. 244, accepts this bay as a harbour.

with ὄρμος—the contrast being between a bay or wide extent of water and that part of it where ships could put in—this usage was not maintained and λιμὴν was used in the same sense as ὄρμος.¹

Hence there is no need to imagine that the ‘Periplus’ insists on a couple of Phaleron Bays for Apollonia. It may mean no more than that Apollonia had two landing-places of importance. Where are they to be sought?

To settle this question the situation of the ancient city needs consideration.

Apollonia is reported to have been situated mainly—τὸ πλεόν τοῦ κτίσματος—on an island (Strabo, 7, 319). It is the view of M. G. Seure, who edited various archaeological reports, especially those of Degrand, that the island of St. Kirik was only the Greek cemetery, and not a place of settlement, since excavation revealed very little masonry and sculpture (*Archéologie thrace*, 2nd series, 2nd part, pp. 101 ff., 1925). Like Ireček (in *Archaeologische Mittheilungen*, X, 1896, p. 162), he inclined to the view that the ancient ‘island’ was the modern peninsula at Sozopol, the isthmus joining the peninsula to the mainland being, it is suggested, of recent formation.

But subsequent excavations in St. Kirik have revealed stonework which was lacking when M. Seure wrote. The chief finds were made when foundations were being dug for the big ‘Sea School,’ which unfortunately now stands on the highest point of this important and not completely excavated site. (The relevant literature is: Mikov, V., in *Izvestiya na Bŭlgarskiya arkheologiceski institut*, III (1925), pp. 236 ff.—in Bulgarian; Škorpil, K., in the same periodical, VI (1930-31), pp. 81 ff.—in Bulgarian, with German summary; Ayanov, G., in the Sofia newspaper *Zora*, 3/7/35.)

The objections, therefore, to locating Strabo’s island at St. Kirik are removed, and here will have been one of the landing-places. M. Seure, in fact, reports the finding of steps at the end of the island from which starts the breakwater crossing to the peninsula. These steps, he suggests, were used for the landing of funerals from the peninsula (‘island’) opposite. They could equally well serve as the landing-place for a settlement.

1. In Thessaly the word was used in a yet narrower sense; a passage in Dio Chrysostom: speech XI, 23, shows that it was a synonym for ἀγορά, ‘market.’ Whether this sentence was actually written by Dio or not is immaterial—it is an ancient note none the less.

Architectural remains of other landing-places have not been found. So we are thrown back on conjecture.

Diagonally across St. Kirik from the landing-place just noted is a small inlet in which at the time of my visit there was a little jetty. Here could have been another landing-place in ancient times. But if this is reckoned as the second point of which the 'Periplus' speaks, it would mean that no account is taken of the beaching facilities offered by the peninsula and isthmus opposite. Even deep-keeled ships which are not conveniently drawn up on to the beach at the end of each trip¹ cannot be left riding at anchor all winter, and in summer, too, may need repairs. St. Kirik itself is too rocky for beaching a ship, while the part of the peninsula facing it is free from rocks.

It is reasonable, then, to look to the modern landing-place at Sozopol as the second point required by the ancient written evidence.

Mesambria.—Sozopol lies at the southern entrance to the wide Bay of Burgas, the head of which is the most westerly part of the Black Sea. Opposite to Sozopol in a northerly direction and clearly visible from it is the line of the Balkan Range which, though no longer a political frontier, has an important influence on climate and vegetation. On the coast in front of this range and shielded by it from the full force of the north winds stands Nesebŭr. This coast is different from its counterpart on the Sozopol side. The Sozopol side also has hills rising behind it and so, to anyone sailing straight into the bay midway between the two entrances, there is a certain similarity. But whereas the southern side is rocky and in foggy weather has accounted for several steamers which ventured too near, the northern side is comparatively flat.

Nesebŭr is about seventeen miles across the water from Sozopol. Like the town of Sozopol, it is placed on a peninsula, but here there is no problem of topography to settle, as Mesambria was on the same site as the modern Nesebŭr. The peninsula here points eastwards, and sheltered harbourage is to be found on its southern side near the isthmus joining it to the mainland. This is where the coasting steamer puts in to-day. But the other side of the isthmus, the north side, though not so favourable, can also be used as an anchorage if the weather is not too boisterous; here the peninsula itself guards against the eastern seas, and the Balkan Range is some five miles behind to break the winds from the north.

1. Compare the remarks of Rollo in *Greece and Rome* for October 1934, p. 44.

It is to be observed that the search for suitable harbourage does not depend mechanically on the finding of a place protected from the north and east winds; it also depends on the extent to which these winds are able to drive the sea. If they have only a small distance in which to impart momentum to the waves, those waves are not nearly so dangerous as waves which have more force behind them. A ship crossing the entrance of the Bay of Biscay from Ushant to Finisterre may meet with a rough sea if the wind is blowing from France, but will certainly meet with a stormy sea if the wind is blowing from the Atlantic.

A double harbour would thus be feasible for Mesambria and there are fine sandy beaches for drawing ships up. However, Sozopol's one harbour has the advantage over what Nesebŭr can provide, because there the outlying islands afford a greater area of shelter than the Nesebŭr peninsula.

Odessos.—Odessos has been succeeded by the modern Varna, a contrast with Sozopol and Nesebŭr which, while officially 'towns,' are of no great importance to-day. Odessos is situated at the head of a medium-sized bay, of which the northern arm is longer than the southern.

The site picked for settlement was not an island as at Apollonia nor a peninsula as at Mesambria, but a jutting cliff, lying behind and beyond the modern harbour. At the cliff foot is a good beach. The sea comes straight in due westwards up the bay, and so the modern town cannot do without the breakwater of its artificial harbour basin. Some protection against these eastern seas could be got in ancient times on the western side of the cliff.

The hills lying close on the north completely cut off the north winds and the five-mile stretch of the north arm of the bay helps against the north-east. This shelter from wind gives great climatic advantages. Varna is placed north of the Balkan Range, that is in a climate-zone where the winters are more severe, but Varna's winter climate is mild because the cold north winds blowing down from Russia are kept off. The effect of the sheltered position is seen in the richness of the vegetation, and in this district are some of the best vines in Bulgaria. Hence, to offset rather poor harbourage, the Bay of Varna has a mellowness which would naturally attract settlers coming to the 'inhospitable Pontos' from the sunnier lands of Greece.

Kallatis.—Mangalia is totally different from the three preceding

sites. As far as the coast is concerned, the best that can be said of it is that the sea air and the beach are both good—and this can be said about most places on the coast of the Dobrogea! The coast-line at the township is formed of low, crumbling cliffs, dirty-brown in colour, and there is no cove or bay or outlying island. The coast runs in a direction slightly to the east of north and so is completely exposed.

The appearance of the coast is slightly different from what it must have been in the days of Kallatis. The reasons are two: First, the building of the northern of the two modern breakwaters has led to the gradual formation of a wide sandy beach stretching out from the cliffs. Secondly, coast erosion has taken place to the north of this beach, at the very end of the line of cliff. A late Roman wall has been eaten away here by the water, and I was informed that twenty years ago (in 1915) there was much more to be seen. This wall was on the north edge of a plateau on which are the foundations of a late Roman building, and it is clear that in ancient times this plateau was prolonged seawards. But even if there was a headland here with as pronounced an apex as that at Varna, there would be no sheltered natural harbour; what little shelter was possible at Odessos was due not so much to the shape of the cliff as to the presence of hill-barriers near by to keep off the north wind; a cliff as at Odessos could only do very little to thwart the eastern seas.

To the south of Mangalia is a deep lake of fresh water. It is proposed by the Romanian Government to cut a channel to the sea and make a naval harbour of this lake. It is possible that the lake was used as a harbour in ancient times; perhaps the outlet to the sea has become by degrees blocked by sand and the saline content of the water counteracted by springs. But the use of this lake, which is a little distance away, would scarcely have been a regular institution except in the absence of warfare and piracy, and the risk of either, especially the latter, would be too great to allow any confident and constant use of such an undefended place.

The fact remains, nevertheless, that in the last quarter of the IVth century B.C. Kallatis was strong and important enough to hold out for a long time against Lysimachos, and in the Middle Ages the Genoese had an important post there.

It is likely that there was an ancient breakwater starting from the neighbourhood of the plateau and curving southwards (Tafrali, O., in

Revue archéologique, 1925 (1), p. 240); I was informed that when there is a heavy sea running the water seems to run up against something before the waves reach the land. Anyhow, it is not easy to see how an important settlement like Kallatis would rest content without harbour works, though it may have done without them for many years.

Tomis.—Like Odessos, Tomis has been succeeded by a leading modern port; Constanța is actually the chief harbour on the west coast of the Black Sea. The construction of the harbour, involving the claiming of a considerable area from the sea, has altered the look of the coast to the west of the peninsula on which was built part alike of modern Constanța and ancient Tomis. But in spite of this, the cliffs, now rising above dry land instead of water, show clearly where the ancient coast was.

The peninsula runs out in a south-easterly direction. It rises high above sea-level and is no humble part of the landscape, joined on to the mainland by a sandy isthmus as at Sozopol or Nesebŭr; it joins the mainland firmly and solidly and the cliffs of the mainland and peninsula run together in continuous line. The ancient harbour is now partly covered with railway lines. It was in a good position, the peninsula forming a barrier against the force of the seas from north and east. The eastern side of the peninsula bears traces of its struggle against the sea, and erosion has been aided by subterranean springs. A disadvantage of the ancient harbour was that when the seas did run in from the south they would go straight into it; this was a minor disadvantage as compared with the great advantage of protection on the other vital sides.

The modern harbour, ironically enough, dispenses with the protection of the peninsula—for most of the old water space on the west of it has been filled in—and a sea-wall goes far out southwards to sea. That it should have been necessary to do away with a natural harbour and substitute an artificial one is a measure of the extent to which the needs of modern shipping, especially deep-water quays for large steamers, alter the nature of the problem of sites for development.

Histria.—Histria has no modern name; it is abandoned except for the buildings put up to house excavators and caretakers. The village which now bears the name of 'Istria'—it used to be Caranasuf—is several miles away from the site.

To-day Histria, which was an island when the Milesians settled there, is separated from the sea by over six miles, first of lake water

and then of sandbank. This part of the coast has been completely altered by the Danube bringing down quantities of silt, which has to be accommodated somewhere, and it gradually helps to build sandbanks, pierced here and there by channels, for many miles along the coast. Hence it is that if one consults an ordinary map it is not always possible to be sure what is sandbank and what is hard land. On the ground itself there can be doubt only about details.

After leaving the village of Vadul (formerly Caraharman) in a northerly direction, a track very soon goes over a different sort of ground from that nearer to Constanța. The desolate land has a salt coating and everywhere is to be seen the purple root which thrives on salt and marks its presence. To the left across the Tuzla lake is a line of cliffs—and this line would certainly be the ancient coast. The track leading to Histria runs the length of a peninsula, surrounded on three sides by lake water, owing its origin to the activities of the Danube. By degrees three tumuli, lying on rather higher ground, come into sight, and beyond them in the distance are more. Finally the track approaches the excavation buildings, placed in between the area where the three tumuli are and the area towards the sea where the excavations are in progress. The track is once more on solid ground; further northward it cannot go, since it is at the head of the peninsula. The solid ground is the ancient island, which is much longer from west to east than from north to south.

Immediately to the west of the modern buildings, before the tumuli are reached, there is a depression which has the same appearance as the 'land' between Vadul and the site. This depression has every appearance of having been an inlet from the sea on the north; as one goes on a track westwards towards the north-western 'coast' of the 'island' and passes the northern end of the depression, the track is plainly seen to pass between two stretches of the same nature—between two dried-up lakes, one being the depression itself and the other a flat piece of sunken ground bordering on the lakeside. I was informed that in wet weather all this is flooded.

This supposed inlet would be the place for a harbour—but a harbour by no means as good as that of Tomis. The eastern part of the island would bear the brunt of the easterly seas; the land to north and north-east would break the force of the northerly seas and thus save Histria from having to meet the full strength of the waves in those directions:

but this land is a fair distance away. The peninsula which runs eastward from the village of Casapchioi is nearly six miles off; the nearer peninsula, running south-south-eastwards from that village, but not projecting so far into the 'sea,' is about a mile off.

This second peninsula, off which ancient Histria would be described as lying, covers the western part of the island but not the eastern. On its highest parts, a gradual rise up from the water, are those tumuli which, when one approaches Histria from the south, can be seen behind the three tumuli actually on the island. The appearance of the old mainland here has altered, as has the appearance of the side of Histria facing this way. It is possible to walk a distance out from the western part of the island over flat silt land till a narrow water channel is reached. On the other side of this channel is a long narrow mound running on a slightly winding course to the north-west. The impression that this is man-made is confirmed by the fact that on either side of it is silt land. It is, however, not continued by any similar construction on the Histria side, and so is unlikely to have been a dyke joining the island to the peninsula. It was probably a breakwater, of which the western side was suited for a deep-water quay. The water on the western side of the peninsula is sheltered from the eastern seas, but here deep-keeled ships would need the use of lighters.

Whatever was the date of the building of this breakwater, there was, in any case, always the possibility of a harbour beside the peninsula.

Tyras.—The last of the sites, Cetatea Albă, is, for a change, situated not on the coast. It lies on the right bank of the broad estuary of the Dniester; some three miles separate it from the Russian side, which is rather nearer here than either above or below the town. The sea is about twelve miles further downstream, but accumulations of sand have made even the two gaps still connecting the estuary with the sea impassable for sea-going vessels. Tyras has, all the same, escaped the fate of Histria. The Dniester is a very long river, serving economically important areas, and communication with the sea can still be maintained through the gap in the sand on the Romanian side of the river by barges and river steamers. Whereas the present quietness of Cetatea Albă is due not to geographical but to temporary political conditions, Histria has become completely cut off.

Tyras occupied a rocky headland overlooking the estuary, a position out of reach of floods and later to be appreciated by the medieval

builders of the great castle which lies in ruins upon it. But the breakwaters of the little harbour which lies in front of part of the site of Tyras and adjacent to the castle are a reminder that the north winds blow here too, and that, as at Odessos and Kallatis, a jutting cliff is by no means good protection.

The foundations of the cliff at Tyras are liable to be undermined by the action of the water; people in search of good soil also help the process. But seeing how long the rock has stood, the danger of erosion at the time of the foundation of Tyras would have no terrors.

This concludes the survey of the seven sites. The inequality of the amount of space devoted to each place is due to the different degrees of certainty of knowledge attaching to them, and not to any difference in degree of utility in providing evidence for Greek choice. Odessos, which has received brief treatment, is just as important material as Apollonia, where the discussion was the most complicated.

None of the sites exactly resembles another, but they can roughly be divided into groups. Apollonia and Histria are islands near to peninsulas. Mesambria and Tomis are peninsulas. Odessos, Kallatis and Tyras are jutting cliffs, Tyras being rather different from the other two in that it was an estuary site.

At the island and peninsula sites harbours with some degree of the required shelter are possible, but the cliff sites are far from ideal. Even Odessos had no great extent of sheltered water. Kallatis was easily the worst site. Tyras, away from the actual sea coast, was in a better position in so far as it escaped the inconvenience of rollers which start their career many miles out in the open sea; but there can be white horses on enclosed stretches of water—hence the modern harbour works.

Nor again are Kallatis and Tyras particularly easy sites to fortify on the land side; and in this they are joined by Odessos. A steep cliff, raised high both above the sea and above the adjacent land, is by nature well equipped to resist bandits or enemies in war, but none of the three sites in question is comparable with, say, Cumae in Italy. It might be urged that, if the native population was friendly, defence was not necessary. But assuming that at the time of the foundation of these colonies there was no need to worry about native attack, it is scarcely likely that the Greeks, who were so fond of an 'akropolis' in their own lands to defend themselves not only against 'barbarians' but against each other, would have dismissed all thoughts of defence

when away on the Black Sea coasts. And yet even the site of Tyras, which looks the most substantial of the three, was not considered in the Middle Ages strong enough to rely on walls alone for protection; a moat was actually cut in the solid rock.

In view of their importance in both ancient and medieval history, Kallatis and Tyras, and to a rather less extent Odessos, provide evidence which is disturbing to the opinion, which is far from rare (see, for example, p. 696 of E. C. Semple's *The Geography of the Mediterranean Region; its Relation to Ancient History*. London, 1932), that the chief needs for a colonial site were a good natural harbour and protection against native attack. Little settlements placed in poor positions as regards navigation and fortification would not affect very seriously generalisations which aim at characterising Greek practice; the same can scarcely be said of Kallatis, Tyras and Odessos.

Kallatis, further, cannot be accounted for on a view that it was a settlement planted in order to 'maintain the line of communication' to ports further north (cf. Semple, *op. cit.*, p. 347). No ship would expect shelter in any sort of bad weather at Kallatis; even supposing that a breakwater was built as soon as the colony was founded, a ship would have great difficulty in making the harbour in bad weather. As for food supplies, Tomis and Odessos—which the evidence we have places earlier than Kallatis—were quite near enough for any ship which happened to be in need; Kallatis was no Cape Colony on the India route.

In parenthesis, it should be emphasised that this criticism does not rule out the possibility that when colonies were first planted on this coast the earlier colonies were so spaced as to be available for halting-places if required. More evidence for foundation-dates is needed to solve this question. As things are, a tentative suggestion could be made that Apollonia would serve as a halting-place on the way to Histria and Tyras. But as Apollonia has such a good natural situation—an attraction in itself—it is too much to say that it was founded just in order to maintain communications.

To continue, it has been urged that the site of Kallatis was chosen because all other better sites were already occupied (Weiss, J., *Die Dobrudscha im Altertum*, Sarajevo, 1911, p. 70). Yet the literary evidence places Mesambria later than Kallatis—and, as the examination of the site showed, Mesambria's site is infinitely superior to that of Kallatis.

Mesambria, however, was passed by, as far as it is possible to judge at present; archaeological evidence may, it is true, prove the literary evidence wrong one day—or leave the question of priority undecided. Still, in whatever way this problem of foundation-dates is ultimately settled, the fact that Kallatis prospered suggests that it is necessary to take into consideration other factors besides harbourage and half-way houses and defence against natives, if the Greek choice of sites on the western side of the Black Sea is to be accounted for.

So far, the differences between the seven colonies have been discussed. Are there any similarities which might allow the establishment of a common denominator?

A look at the sites from the water makes it clear that anyone interested in organising a raid by boat would do well to emulate Philip II of Macedon and introduce a load of silver beforehand. This applies not only to the island and peninsula sites but to the cliff sites as well; the cliffs provide not only good observation posts but give attackers by sea the trouble of climbing up them. Even at Kallatis, where the cliffs are not so bold as at Tyras and Odessos, the elevation above the shore puts defenders at an advantage over attackers from the beach. In the ancient world piracy was always a danger—at some periods more intense than others—but the threat of it was never absent. The activities of pirates on the open sea are enough of a nuisance without temptation being offered, by lack of coastal defences, to loot a town. Apollonia and Histria, being on islands, would be the most difficult to take by surprise; the peninsula sites come next, but the cliff sites are a good third. Protection against piracy may, therefore, be taken as one of the requirements of a site on this coast.

A consideration of the natural resources of all these places may be of some further help.

Sozopol to-day is the principal Bulgarian fishing town, the south side of the Bay of Burgas being the most productive fishing ground on the Bulgarian coast; the main catch is a kind of small mackerel.¹ There are also vineyards and cornfields. Behind Sozopol are the oak forests of the Strandža range. Formerly timber was exported through Sozopol and wooden ships were built there; von Brognard, an Austrian diplomat, noted this in his travel-diary in 1786 (published by Nikov, P., in *Godišnik na Sofijskija Universitet: istoriko-filologičeski fakultet*, XXVIII,

1. 'Čirozi' is the Bulgarian name for these fish.

1931). In recent years a harbour was built further down the coast, at Tsarevo, to deal with the timber trade.

Mesambria divides its attention between fish, agriculture and viticulture—for the latter of which the sunny, Balkan-sheltered position is responsible.

Varna, besides modern shipping and industry, has vineyards, mentioned earlier, and valuable orchards, and agricultural land as well.

Both Mangalia and Constanța are in a black-earth steppe-country—and hence agricultural areas.

The lakes beside Histria are part of a big fishing area, centred round Jurilofca some miles nearer the Danube. There are a few fishermen's huts near the supposed breakwater. The mainland is the same sort of country as that round Mangalia and Constanța.

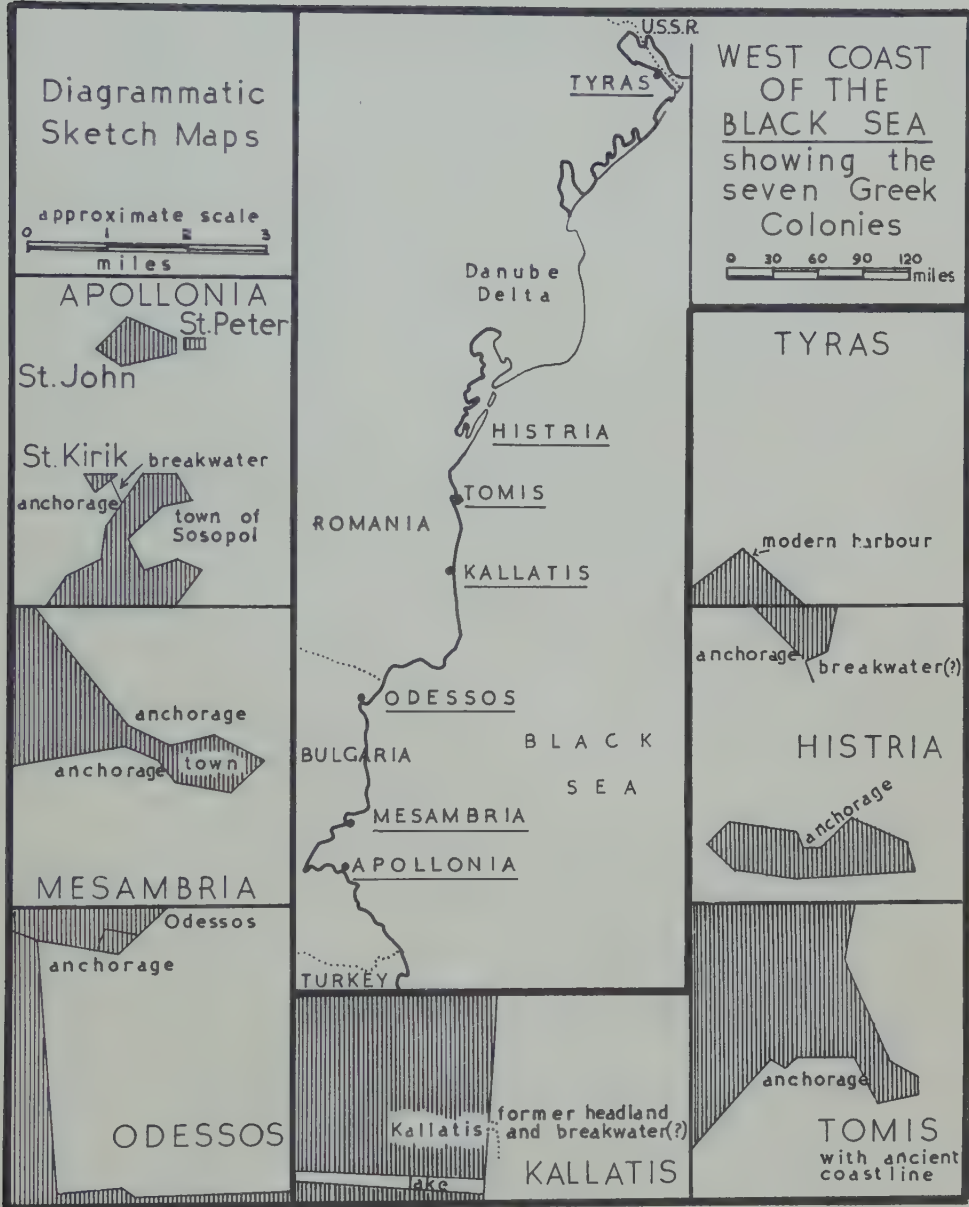
Cetatea Albă is in a black-earth country, but it has a further advantage in that the sandy banks of the Dniester estuary are good ground for vineyards and orchards.

Thus, all the seven sites are well placed for the obtaining of food. Only near Histria are the conditions likely to have changed since antiquity—and that in a direction which the inhabitants would have welcomed, if it had not meant at the same time the end of Histria as a port. The silting on the coast has spread over a wider area the characteristics of the Danube fisheries. By the cutting of channels from the southern arm of the Danube fresh water has been admitted into the coastal lakes, formerly bays of the sea, to the south. Thus the Jurilofca area, though not in the Danube delta, can enjoy the same advantages as the important fishing centre of Vâlcoș on the northern arm of the Danube and get both freshwater and seawater fish and, most important, sturgeon. The people of Histria had to go up to the Danube for the freshwater fish and sturgeon, and in Roman times they were very particular about their rights there (cf. Parvan, V., in his *Histria*, IV, Bucharest, 1916, p. 43; French summary, p. 181).

Presence of food supplies may be added, then, to adequate defence against marauders by sea as characteristics shared by all the colonies.

There might, certainly, be lean years; crops might fail, fishing might be poor and hail might damage vines. But in general more than ample food could be expected. Indeed, the Black Sea coasts became important sources of food and other natural products for Greece.

Polybius (4.38) gives a list of some of the articles of export from



the Black Sea. Of the articles on this list the west-coast colonies between them could provide corn, dried fish, cattle and honey. Timber and hides are further export possibilities.

To export wine to Greece would be as futile as 'coals to Newcastle.' In fact, wine, like olive oil, was an import from Greece into our area. On this coast the wine would be wanted especially at the places on the steppes which provide no friendly home for vine shoots.

The colonies would serve also as the ports of entry for the Greek pottery and bronzes and other objects which have turned up on the coast and far into the interior.

It is, however, premature to assert that Histria, for example, was founded in order that its settlers should send dried fish to Greece, buy Greek pots or forward them inland. It is possible that these motives were at work, but it is wise, though not spectacular, to eschew ingenious theorising from incomplete data.

To sum up, the evidence here reviewed indicates that food and defence against piracy were available at all the important colonies, and that good harbourage and defence against land attack were not available at them all and would have to be supplied artificially. It is suggested that the settlers were more anxious about sea defence and food than about harbourage and land defence; if they could be sure of all four assets, so much the better.

THE HOUSESTEADS TERRACES

By W. A. EDEN

WITH PLATE XXXVII

THE apparent signs of former cultivation on the southward facing hill-side below the Roman Wall at Housesteads are among the most interesting remains of their kind in the north of England. Factors which make them more than ordinarily important to the student of historical topography are their position, 800 feet above sea level, on land which to-day is entirely given up to rough pasture; their extent, stretching as they do for over half a mile in a straight line from east to west, and their diverse nature. A brief description of the remains appeared in *Antiquity* for September 1931.¹ No apology need, however, be made for reopening the subject here, especially since important facts have in the meantime been brought to light through the efforts of the Durham University Excavation Committee.

In this article in *Antiquity* Mr. W. Percy Hedley describes a portion of the remains. He claims to have distinguished signs of three distinct field-systems, apart from the modern arrangement, in the immediate neighbourhood of Housesteads; and he tentatively assigns these three systems to three periods. First, he describes a series of 'up-and-down lynchets,' which he supposes to be of Celtic origin, lying to the south-east of the fort. Next come the long, narrow terraces which are such striking features of the hill-side immediately below and to the south-east and south-west of the fort. Mr. Hedley asserts that 'it can be clearly seen that where there is terrace cultivation it has been superimposed on the earlier system of up-and-down lynchets.' The terraces are known to be later than the Vallum, and therefore, he assumes, they must be post-Roman in date. There are difficulties in the way of assigning to them an early Anglian date, and Mr. Hedley is driven to suggesting that they 'can hardly have been made until the eleventh century at earliest, and may perhaps be as late as the fifteenth century.' The third system is presumably that which can be seen on the lower slopes of the hill to the south-east and the south-west of the fort. It consists

1. Vol. V, no. 3, pp. 351-4.

of parallel strips running from the bottom of the valley up the hill-side, separated by lines of stones, and divided into the ridge and furrow of eighteenth-century arable. Mr. Hedley assigns the ridge and furrow to the period of the Napoleonic Wars, but it is not at all clear whether he considers the stones to be remains of this period, or whether these are to be taken as belonging to the 'up-and-down' linchet group.

Having been greatly interested in this description, and at the same time unable to reconcile some of the statements contained in it with the photographs and plan which accompanied the article, I recently took an opportunity of making a careful examination of the site and preparing a rough survey of the remains. The results of this investigation, together with the findings of the Durham University Excavation Committee in 1932, went to show that another interpretation of the remains is possible, and that the Housesteads terraces have not yet yielded the whole of their secrets.

The survey showed that there are four distinct series of terraces which may or may not formerly have been linked together in one system. If we begin at the east of the site, the first (A on plan) is immediately below the south-east corner of the fort. It is the most irregular of the four, and there are numerous signs that the terraces have been partly destroyed by later building. Towards its western end the series is crossed at an angle by the footpath leading south-east from Housesteads farm. Two terraces project for a short distance to the west of this footpath and form a link between the first and the second series. The latter (B), the most perfect of the four groups, is situated immediately south of the farm, and is lower down the hill-side than the other groups, which all start at about the same level. This second group is continued westward across the modern field wall just west of the farm, and finishes at the track which leads south-westward from the space in front of the fort. Higher up the hill-side and immediately to the west of the farm is the third group (C), which again has been partly destroyed by later building. The fourth group, (D) farther west, appears to be an extension of the third, one linchet being continuous from one group to the other.

Below the linchet groups A, C and D are remains of an entirely different type. These consist of a series of lines of rough stones (E F) running up the hill-side from the bottom of the valley and spaced at more or less regular intervals. Without exception these lines of stones

stop at the edges of the lowest terraces of the linchet groups. All efforts to trace their remains higher up the hill-side (that is to say, on the linchets) proved unsuccessful. The ground between some of these lines of stones has been thrown up into ridge and furrow, with the ridges running parallel to the stones. Group E is bounded on the south by a line of stones running east and west at the bottom of the valley. Parallel to this, and roughly 100 feet from it, is another line. The two appear to mark the boundaries of an old road (G), which is continued east and west beyond group E. There is another group (H) of roughly parallel lines of stones running up from the burn to the east of the camp. At the top this group was found to impinge on the eastern end of linchet group A, several of the lines of stones being continued along the tops of the linchets. There are also traces of a line (*st*) crossing the others at right angles slightly to the east of the camp. A fourth group (K), apparently of a type similar to E and F, lies near the western extremity of the site, running northward from the north side of the old road. In addition there are two lines of stones (which do not appear to belong to the same type as those already mentioned) running north and south up the hill-side near the eastern end of linchet group B. The first of these, marked *fg* on the plan, is composed of large irregular stones, and runs in an irregular line across the linchets about 100 to 150 feet from their eastern end. The other (*hk*) is not so much a line of stones as an earthen bank. It forms the eastern boundary of the linchets of group B. The line *lm* of irregular stones may have been associated with this bank, or with the field group F, of which it is the western boundary.

So much for a general description of the site. The interpretation of the remains is more difficult, and indeed a thoroughly satisfactory explanation is impossible in the present state of our knowledge. We may agree, however, that a re-statement of the problem in the light of recent findings may prove useful at this stage. Incidentally we shall find that certain of Mr. Hedley's suggestions can no longer be entertained.

In the first place, apart from the line of stones and the bank last mentioned, there seems to be no possibility of distinguishing remains belonging to more than two periods on the Housesteads site. Certainly a great effort of the imagination is needed to see any traces of up-and-down banks running across the linchets and superseded by them. There are occasional rough outcrops of stone in the faces of the linchets in groups A and B, but it is difficult to discover any suggestion of

alignment in these. Be that as it may, it is by no means clear from his description whether Mr. Hedley considered the parallel lines of stones in groups E and F to belong to his 'Celtic' system, and therefore to be distinct from the ridge and furrow cultivation of the eighteenth and early nineteenth centuries. In his plan Mr. Hedley shows some of the ridge and furrow crossing the lines of stones at an angle, seeming to imply that the two belonged to different systems. If this were so the only possible explanation would be that the lines of stones were later than the ridge and furrow, since the ploughman would presumably have more respect for his ploughshare than to plough deliberately across a line of rough stones. Actually, however, the ridge and furrow runs parallel to the lines of stones except where these have obviously been disturbed, and there is nothing to suggest that the two did not belong to one and the same system. If, then (apart from the exception already mentioned of which more will be said later), we have at Housesteads remains belonging to two periods instead of three, the problem is to some extent simplified. It ought to be possible to establish an approximate date for at least one group, and to discover which was the earlier.

In this connection the work of the Durham University Excavation Committee in 1931, 1932 and 1933 is valuable.¹ Briefly the evidence then collected is as follows. Running south from the south gateway of the fort a paved road was discovered. This roadway was flanked on either side by buildings belonging to the civil settlement surrounding the fort. The floor of one of these buildings, which on the evidence of coins dropped before its erection was considered to be not earlier than A.D. 300, was of one build with the roadway. Farther south, at a point (*x* on plan) about 300 feet from the fort, the roadway was found to cut through one of those terraces in group A, which projects westward, beyond the modern track leading south-east from the farm, to form a link with the linchets in group B. At the point where the road crosses it the terrace was retained by a rough revetting wall. The excavators therefore concluded that the linchet groups A and B were of Roman date.

With regard to the linchet groups C and D, which, as we have seen, are connected by a terrace running through from one group to the other, there seem to be sound reasons for assigning to them a similar date. In the first place they are similar in form; secondly, the eastern end

1. Cp. *Archaeologia Aeliana*, 4th Series, Vol. IX, pp. 225 f.; Vol. X, p. 91; Vol. XI, p. 186.

of group C has been partly destroyed by buildings which almost certainly (they have not yet been excavated) belonged to the civil settlement of Roman times; and thirdly, there are suggestions that all four groups may at one time have formed one compact system. The evidence on which such an assumption might be based is as follows :—

The linchet *no* in group C is continued east to a point about 200 feet south of the south-west angle of the fort. As I have already stated, the eastern ends of other lincets in this group (those to the north of *no*) have been obliterated by the buildings of the civil settlement. Those to the south of *no* at present stop at the modern field wall to the west of the farm, and it seems reasonable to suppose that they were at one time continued at least as far as the track which leads south-westward from the farm. Here it may be mentioned that the lincets in group B have their western termination at this track, and that the track, if continued north-eastward, would strike the south gateway of the fort. Moreover, the building just outside the fort to the west of this gateway has a splayed angle which would just allow of the track's passing it without deviation at this point. I was told by a farm labourer that remains, which may have been those of a road, are traditionally supposed to have been found on the line of continuance of the track over the ridge to the south-west. It is therefore more than likely that a road leading from the south gateway, towards Chesterholm, followed roughly the line of this track. This being so, there is every likelihood that the eastern termination of the lincets in group C was at this road. On similar grounds we may perhaps argue that the road originally formed the western boundary of the lincets in group A.

We may now ask which existed first, lincets or road? It is perhaps going too far to attempt to answer this question, but a point which seems to have bearing on it is the almost exact alignment of the edge of the terrace *ab* with that of *cde*. There is nothing to suggest why the land between the farm and group B should have been left unterraced, and why the two lowest terraces of group A should stop suddenly a little to the west of the subsequent wall *fg*. The most reasonable supposition is that the terracing was once continuous over this area and that C and A were once parts of one and the same series. If one might hazard a guess, it would be that the original terracing extended all the way across in front of the fort, to include what we have called groups C and A, and that groups B and D were later extensions of the

system made necessary by the building over of parts of the original terraces. The road leading south-west from the fort may perhaps have been subsequent to the first lot of terraces, but had come into use before group B was made.

It has been assumed all along that these terraces were connected with some form of cultivation. It seems difficult to suggest any other purpose for which they might have been made, but if we allow this explanation (and the point is not proved) it is by no means easy to come to any conclusion regarding the type of cultivation practised. The form of the terraces suggests cultivation by ploughing,¹ but what kind of crops were grown remains a mystery. The area of the terraces at present remaining is roughly about thirteen acres. Even supposing the area between groups C and A was under plough simultaneously with the land comprised in groups B and D, which seems unlikely, the maximum area under plough at any one time can scarcely have exceeded twenty acres. When we remember that in medieval times an arable area of perhaps 1500 acres might be required by a village community of two or three hundred inhabitants, it is impossible to think of the Housesteads terraces as providing the corn which would be needed by the inhabitants of the vicus, which must itself have housed at least a similar number of people. If, then, the inhabitants of the vicus were under the necessity of obtaining elsewhere so great a proportion of the grain required for food, it may be asked why they should have troubled to grow any at all. Were these terraces, in fact, used for growing corn or had they some other purpose?

Any attempt to answer this question must be in the nature of a guess. There are, however, two suggestions which offer themselves. The first is that the majority of such inhabitants of the vicus as were not directly dependent on the garrison for a livelihood would be engaged in pastoral pursuits, and that a certain amount of corn (probably oats or rye) would be useful to provide straw for bedding for the animals, and also for thatching. A few horses may have been kept, and the grain would be useful for feeding these. It will be interesting to see whether this idea is borne out by excavation. The finding of buildings which may have served as byres or stables would be a valuable link in the evidence. The other suggestion, that the terraces were cultivated

1. This is not to say that the terraces were originally formed by the plough. There is evidence that one of them, at least, was not. See p. 9.

as market gardens, has even less evidence to support it. Market gardening was not a commercial occupation in this country until the seventeenth century, and though the conditions prevailing at the gates of a frontier fort during the Roman occupation were no doubt of a very special nature, it seems difficult to believe that it was possible at this period to grow vegetables profitably on a Northumberland hill-side 800 feet above sea level.

It is obvious from the foregoing remarks that a great deal more evidence is required before the economy of the Housesteads' settlement can be accurately explained. Excavation of the buildings in the settlement would help considerably, and the cutting of sections through the terraces at one or two points would be useful for establishing the means by which the terraces were made. In this connection a curious characteristic of the lowest terraces in groups A and C may be mentioned. This is that these terraces have no linchets below them along the lines *ab* and *de*. Instead the normal hill-side appears to be continued up to the lines *ab* and *de*, from which the terraces appear to be cut back. This feature suggests that these particular terraces were not made by ploughing. One or two points which will be mentioned in connection with the other field remains on the site might also be cleared up by excavation.

The problem of the second type of remains is not so simple as at first appears. In one place only (at H) can it be stated definitely that the lines of stones are of subsequent date to the terraces, since they are continued along the tops of the linchets in group A. The lines *fg*, *hk* and perhaps *lm* are subsequent to the linchets in group B, but they appear also to be of more recent date than those in the adjoining group F, and so cannot be connected with them. The line *fg* is also continued across the line of the old road GG. At other points, notably at *p* and *q*, the stones forming the boundary of the old road are actually overlaid by linchets. That the road was connected with the field system E is suggested by the remains of a gateway from the road into one of the field divisions at *r*. Moreover, the lowest terraces in groups A and C, which, as we have already seen, are without linchets at *ab* and *de*, actually have linchets (*pa* and *cd*) where they do not abut on the top sides of systems E and F. The lines of stones in systems E and F run up the hill-side as far as *ab* and *de* and then stop, there being no indication of cross walls along the lines *ab* and *de*.

Apart from the fact that they are overlaid at two points by lynchets of presumably Roman date, and that these lynchets seem to be modified where they abut on E and F, the fields in groups E and F particularly have every appearance of having belonged to a rig and dale system of cultivation, which is known to have been prevalent in parts of the English highlands as late as the early years of the nineteenth century. It is probable that since they do not form complete enclosures the lines of stones represent not old walls but a kind of balk formed by clearing the land of boulders and depositing them at the edges of the strips. We know that the land at the bottom of the valley below Housesteads was all under corn at the beginning of the eighteenth century.¹ Where else, if not in these stone balks, should we look for signs of this former cultivation? It is strange that Mr. Hedley should have cited a plan of an almost exactly similar arrangement of fields existing as late as 1840 at Silloans in Redesdale and accepted it as evidence that a 'Celtic' field system existed at Housesteads at least a thousand years earlier. It comes much more aptly as evidence that here, in groups E and F, we have the remains of the eighteenth-century arable fields. The connection between the field ridges, which Mr. Hedley accepts as being of recent date, and the stone balks has already been mentioned.

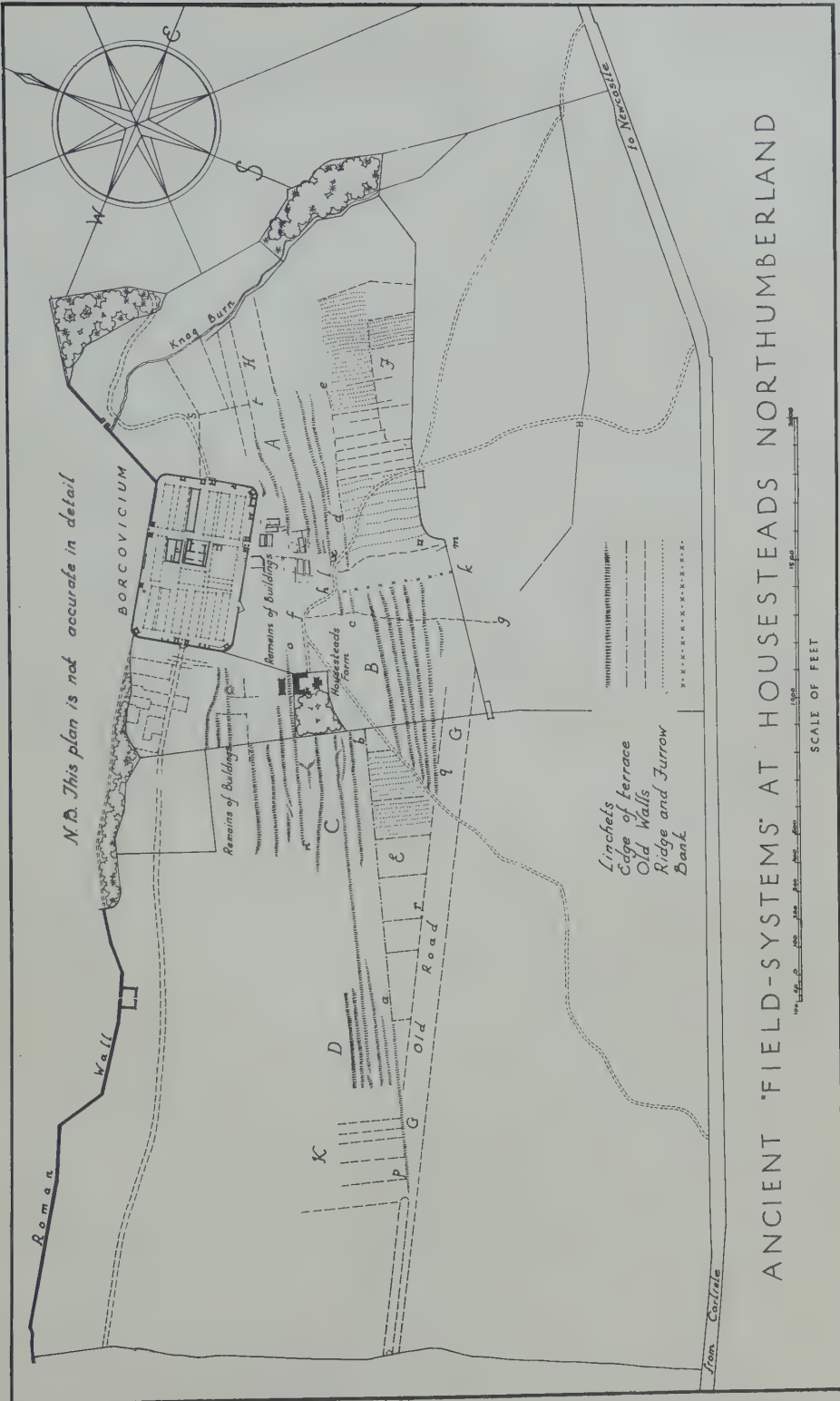
The problem of the lynchets at *p* and *q* must now be dealt with. At *p* the existence of a rig and dale system (K) north of the road, and possibly subsequent in date to the period when the road was in full use, may have been the cause of the formation of the lynchet by the gravitation of the soil down the hill-side. The balks in K have every appearance of being of more recent date than those in E, and the narrowing of the road west of K may have been carried out in conjunction with the laying out of these strips. This particular lynchet is very much rougher than those in the regular series at D. It is also possible that it may have been built up to preserve the level of the terraces and that the lynchet *cd* may be similarly explained. With regard to *q*, there is the possibility that, rather than undertake the task of destroying the lynchets, the eighteenth-century cultivators may have at one time brought the terraces in group B back into use. This would explain their freshness, as compared with those in the other groups, and the tendency of the lynchet to be pushed downhill by continued ploughing would account for the obliteration of the road at *q*.

1. Cp. *Archaeologia Aeliana*, Vol. XXV, 1904, p. 194.

Other remains on the site are the group of lines of stones at H and the apparently independent lines *fg*, *hk* and *lm*. We have already noticed that group H retains traces of a cross wall *st*, which gives the areas defined by the stones the character of enclosures bounded on the east by the Knag Burn and on the west by the wall of the fort. It is therefore possible that these stones represent the walls of old cattle enclosures, where the animals could be gathered for safety from a threatened raid. An Act of Parliament of the reign of Queen Mary (2 & 3 Phil. and Mary C. 1) empowers the inhabitants of the northern counties to make such enclosures, and since much of the legislation of the period was intended to legalise practices already in vogue, it is possible that this was the purpose of the enclosures. The practice of the moss troopers would be much more likely to influence Parliament than Parliament the moss troopers. The purpose of the remaining divisions between groups B and F is still obscure, but these, too, may have been cattle enclosures.

Such, then, are the remains of the ancient field systems at Housesteads. If the foregoing conclusions are correct, we see that the land here may have been cultivated at two distinct periods, during both of which special circumstances may be said to have prevailed. During the first period the Roman frontier fort attracted settlers to its vicinity, and land which was naturally unsuitable was made to bear some sort of crop for the benefit of the camp followers. In the second period, after the land had remained uncultivated for centuries in the occupation of Border thieves, cultivation was again attempted by the new line of owners who followed the last of the moss-troopers. These men were no doubt vaguely influenced by seventeenth- and eighteenth-century ideas of agricultural improvement, and being newly recruited to the ranks of the landowners were probably inclined to make rash experiments, especially during the period when the Corn Laws ensured a high price for wheat. However that may be, the land was soon allowed to revert once more to the rough pasture we see to-day. Scientific methods of agriculture may in the future improve the land for grazing, but it is doubtful whether it will ever again be required to produce corn.

In conclusion, I should like to acknowledge my indebtedness to Mr. I. A. Richmond and to Mr. Eric Birley who first called my attention to the problem, and who gave valuable help and advice during the preparation of the study; also to my wife, who abandoned other and more attractive work in order to hold the tape.



2000 feet NW. of Halton Castle. The deeply sunken Halton Road passes through the central portion of the camp to Runcorn, distant about $1\frac{1}{2}$ miles in a NW. direction.

The ditch (Fig. 2) was of the typical V-shaped form, and had an average depth of 4 feet. The most perfect sections occurred in the NW. side (Fig. 1), where about 40-feet run of the ditch was cleared in closely cut sections. On this side the geological formation consisted of hard, mottled sand merging into a soft, shaly sandstone rock below. Into this formation the ditch had been cut; and at points where the jagged face of the rock occurred it had been coated with puddled clay, and some of the

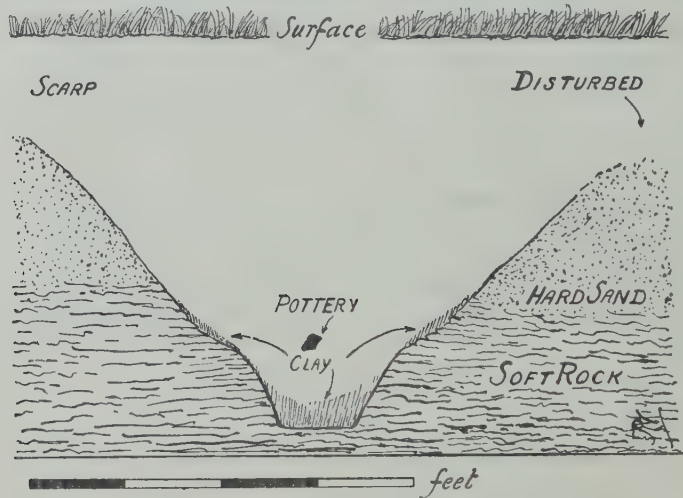


Fig. 2.—SECTION OF DITCH ON NW. SIDE OF CAMP, HALTON, CHESHIRE.

latter had evidently fallen away and formed the primary infilling of the ditch (Fig. 2). The width of the last named varied from 10 to 8 inches.

We traced the structure SW. to a point 82 feet 6 inches from the kerb in Halton Road, but no trace of it was discoverable beyond in a SW. direction. The natural rock had also dipped downwards, and the surface deposits seemed to have been disturbed. How much of the ditch on the side, NE. of our sections, had been destroyed in excavating the deep cut for the approach to the new buildings is not clear as its presence was not detected until the pottery was found.

NE. side.—Three sections of the ditch, varying from 8 to 6 feet long, were explored in the narrow spaces between the newly-built houses on the northern side of Halton Road. The lower portions of two of these had,

fortunately, been cut in the soft rock and were well preserved. The third or eastern section was not very clearly defined as it had passed through a pocket of sand; the scarp, however, was fairly intact; but the counter scarp was broken and in its place were a number of glacial boulders and some clay.

SE. side.—As faint traces of a ditch were traceable on the N. side of the steep bank to Halton Road, search was made for the NE. angle of the ditch. Unfortunately the sand hereabouts seems to have been quarried and the hollow space filled with domestic refuse of quite recent date. But one small section of the ditch was found just inside the fence by the Halton Road. Some charcoal was found in it but nothing else.

The internal area.—Although extensive building operations have been carried out within the lines of the ditch, no structural or other remains of the Roman period have been discovered. Furthermore it seems quite clear that our newly-found camp is widely separated from the Roman fort claimed to exist under Halton Castle, and also from the site at the upper end of the Mersey Estuary where the ingots of lead were found in the sixteenth century. Cf. Watkin, *Roman Cheshire*, pp. 294-5.

The finds consist of a neck and fragments of two or three amphorae of the globular type, and a large section of a mortarium, in hard white clay, of the hammer-head type with a finely reeded rim, belonging to Collingwood's form 13; period late third or fourth century. All of these came from the ditch on the NW. side. The only other find was a very small fragment of the neck of a flagon in coarse red clay from the ditch on the NE. side, but this unfortunately does not admit of close dating.

Summary.—The existence of the ditch was proved on three sides: the maximum dimensions of the camp being about 200 feet NW.-SE. and about 210 feet NE.-SW. as far as it was traced.

Although its SW. limits are unknown the camp seems to have been of comparatively small dimensions enclosing an area of about an acre in extent. The evidence for dating, though wanting in amplitude, points to the occupation of the site in the late third century or in the fourth. And as no structural or other remains were found within the enclosed area, it seems clear that the occupation was a very short one, and that the camp was intended only for temporary use.

Acknowledgments.—We wish to express our indebtedness to all those who helped in any way during the course of our investigations. To

Mr. W. H. Wiltshire for his prompt action in calling attention to the discovery of the pottery, for his material aid, and for the use of his car. To Mr. Clark for kind permission to dig on the SW. side of the site. To Mr. A. S. Cropper for permission to dig on his land on the opposite side of the road, for his material help, and above all for calling our attention to the existence of the ditch on the NE. side, traces of which he had discovered when making cuts for the foundations of his new houses. To Mr. G. B. Leach for the use of his car. To our colleague, Mr. W. F. Irvine, for his keen interest in the discovery and also for so generously defraying the whole cost of the investigations.

REVIEWS

Ancient Egyptian Sculpture lent by C. S. Gulbenkian, Esq.: Temporary Exhibition. By SIDNEY SMITH and I. E. S. EDWARDS. Pp. ii+28; Plates I-XXXII. British Museum, London, 1937.

Mr. C. S. Gulbenkian's collection of Egyptian sculpture, which he has lent to the Trustees of the British Museum for eighteen months, should be visited by all who are interested in the art and antiquities of the ancient Near East. Though small, it is a very choice collection, containing among other well-known pieces the splendid obsidian head of Amenemmes III.

Mr. Sidney Smith is to be congratulated on this catalogue, which not only enumerates and describes the exhibits, but is at the same time an illuminating little commentary on Egyptian sculpture of all periods. The thirty-two photographic plates are of exceptional merit. Mr. Edwards' chapter on the inscriptions, some of which are neither easy to read nor to translate, adds to the interest and usefulness of the book.

Just one criticism. Should not the relief displaying a royal head (Plate XIX) be assigned to a later period than the XVIIIth Dynasty? I would suggest that it is work of the XIXth or XXth Dynasty or even later.

A. M. BLACKMAN.

HERMANN GRAPOW: *Untersuchungen über die altägyptischen medizinischen Papyri*, Part II, in *Mitteilungen der vorderasiatisch-ägyptischen Gesellschaft*, 41. Band, 2. Heft. Leipzig, J. C. Hinrichs, 1936. Price 3 M.

All who have read the first part of Dr. Grapow's study of the ancient Egyptian medical papyri will be glad that this important piece of work has been brought to so satisfactory a conclusion. In this second part he deals first with the form, phraseology and syntax of the diagnoses and directions for treatment and then discusses at considerable length the prescriptions or 'recipes.' He shows here, even more fully than in Part I, how entirely the latter, apart from a few exceptional instances, differ from the former not only in the form in which they are drawn up but in their syntax.

Grapow may be correct in his conclusion (p. 110) that the indeterminate verbal forms (die unbestimmten Formen, pp. 107 f.) are to be regarded as passive *sdm.f* forms used impersonally.

One is inclined to wonder whether those forms which have the appearance of the 3rd pers. sing. masc. or fem. of the old Perfective (Pseudo participle, pp. 104 and 108) may not sometimes be prospective

passive participles, though Gunn himself in his *Syntax* does not cite any examples of this postulated participial form from the medical texts.

Despite Grapow's statements to the contrary (pp. 121 ff.), there is still much to be said for Breasted's view that the surgical portion of *Pap. Smith* is a copy of a work composed some time during the Old Kingdom (see e.g. p. 123 with note 1). Nowhere, by the way, in that section of the MS. is there any occurrence of *hn'* with the infinitive, a usage from which the Coptic Conjunctive is ultimately derived (p. 124).

The section dealing with the rearrangement and reclassification of the medical texts (pp. 126 ff.) is most useful and suggestive.

P. 58, l. 16. For *brmt* read *bntwt*.

P. 67, l. 1. Insert *sic* above the *n* in '*h'n*' (see Gardiner, *Egyptian Grammar*, § 477, 2).

P. 83, ll. 7-14. *Fl₂w* is a plur. not a sing. word, so instead of 'in einem Kuchen,' 'in einen Kuchen,' read 'in Kuchen.'

P. 87, l. 9. The flesh-sign can be an abbreviated writing of *kns* (see *Pap. Ebers*, Nos. 790 and 793) as well as of *k₂t*.

P. 88, l. 24. For 2 *d* read 3 *d*.

P. 105, l. 5. For 3 *ps. sing. masc.* read 3 *ps. sing. fem.*

It is much to be desired that Dr. Grapow himself should undertake the proposed task of bringing out a new edition, with translation and commentary, of all the Egyptian medical texts discussed in this preliminary investigation, a task for which he has admirably equipped himself and which no living Egyptologist could carry out better than he.

A. M. BLACKMAN.

Fouilles à Saqqarah: Le monument funéraire de Pepi II, Part I: Le tombeau royal. By GUSTAVE JÉQUIER. Pp. 1-36; with 28 Plates and 15 Text Figures. Service des Antiquités de l'Égypte, Cairo, 1936. Price P.T. 80.

The thanks of his egyptological colleagues are due to Monsieur Jéquier for this fine volume, an admirable record of operations at Sakkârah during the seasons beginning with and subsequent to that of 1932-1933.

What he has to say about the little chapel, which once stood against the north face of Pepi II's pyramid and contained in its south wall the façade-stela concealing the entrance to the descending passage admitting to the subterranean chambers, is of great interest. The fragments he has found of the reliefs that once adorned its interior are evidently of the finest quality, and it is a pity that photographs of at least the two fragments reproduced in outline as Figs. 1 and 2 (pp. 2 f.) are not included among the Plates. The representations of *Npr*, *Df₂* and, perhaps, *Hw* as bearers of offerings occur also, it might be observed, in the funerary temple of Sahurē (see Borchardt, *Grabdenkmal des Königs*

Sahurē, ii, Plates 29 f.). The figures of the Souls of Pe and Dep, ranged apparently on either side of the façade-stela, as if to welcome the king into the abode of the dead, as they are often depicted as welcoming him into a temple, formed a notable feature in the decoration of the chapel.

On pp. 5 ff. Monsieur Jéquier describes the descending passage and other subterranean apartments. A very curious find was the mass of linen cloths stuffed between the two great blocks of limestone which obstructed the upper end of that passage. What purpose did they serve—a practical or purely ceremonial one? The passage and the corridor and chambers to which it leads have been completely cleared of debris and consolidated, and the granite portcullises, which, as Wenis tells us in his biographical inscription, he brought all the way from Aswan along with their massive granite frames, have been jacked up to the position that they occupied in the days before the king's obsequies. Visitors can now pass between these frames and beneath the portcullises and proceed without difficulty to the rooms beyond. Monsieur Jéquier's most important and exacting task was to put into their places in the walls numerous fragments of texts which were found during the clearance of the vestibule, the long corridor, the ante-chamber and hall of the sarcophagus. The results of that undertaking are most gratifying, for many of the lacunae in the Neferkerē version of the *Pyramid Texts* are now filled up and much of what was supposed to be irretrievably lost has been recovered. To students of the *Pyramid Texts* the two concordances at the end of the volume will be very helpful.

It is to be hoped that the next volume will contain plans and sections of the whole structure drawn by a trained architect. And will not the author supply us with a drawing of the south wall of the 'Salle du Sarcophage' like that of the north wall in Fig. 10 (p. 18)? This is very helpful to the reader when studying what Monsieur Jéquier has to say about the position of the texts on the wall in question, and he misses that assistance when he comes to the description of the wall opposite. Again, there might well be a detailed drawing of the 'palace-façade' design, carved on the walls south, west and north of the sarcophagus, for that design is not only highly decorative but of considerable archaeological interest; whereas the photographs on Plates 36 f. are by no means adequate. Finally, may one venture to express the hope that the publication of the results of the excavation of the funerary temple of Pepi II will not long be delayed? To read Monsieur Jéquier's articles on that excavation in back numbers of the *Annales du Service des antiquités* is to make one desirous of learning all there is to be known about that temple, and above all to see drawings and photographs of the fragments of reliefs and inscriptions found therein! Besides supplying him with much interesting information, the book has made the reviewer determined to visit without fail the underground passages and chambers of Pepi II's pyramid on the occasion of his next—he hopes not long-deferred—visit to Şakkârah. There he expects to receive a valuable

lesson in the methods to be adopted when consolidating a ruinous ancient building and when repairing inscribed or sculptured walls with which time and, above all, the hand of men have played havoc.

A. M. BLACKMAN.

The Arts in Ptolemaic Egypt: a Study of Greek and Egyptian Influences in Ptolemaic Architecture and Sculpture. By IBRAHIM NOSHY. Pp. xi+153; 18 Plates. Oxford University Press, 1937. Price 15s.

As its sub-title indicates, this book does not pretend to deal with the whole of Ptolemaic art: it is concerned mainly with the monumental and more obvious forms of art, tombs, houses, temples and sculpture, and has little or nothing to do with 'small art.' This one-sidedness is to be regretted, even though the book as it is has its interest and value to the student of Ptolemaic Egypt.

Dr. Noshy's main thesis is that Greek and Egyptian art in Ptolemaic Egypt were almost entirely without effect on each other, and attempts at fusion or mixture of the two styles and traditions were very few indeed.

There will be few who will dispute the correctness of this conclusion, but many will doubtless have feelings of disappointment when their reading is finished, for the author has scarcely made the most of his subject, material or opportunities, especially as regards Egyptian art. As an Egyptologist with little claim to speak authoritatively of the classical side of the question, the reviewer is struck by the lack of proportion shown, and the greater space devoted to, and emphasis laid on, the classical side. The author certainly seems more at home with his classical material, and his Egyptian sections as a whole are disappointing, stereotyped and inadequate. This doubtless explains various slips such as the reference to 'demotics' (p. 11), the interesting news that 'gentler folk' considered Babylonian cuneiform as an essential accomplishment in the XVIIIth Dynasty (p. 10), and the omission to point out (p. 70) that though a granite shrine for the cultus image does indeed stand to-day in the sanctuary of the temple of Edfu, the shrine itself was made by Nectanebo II and originally had nothing to do with the Ptolemaic temple of Edfu. Another error, and no little confusion of thought, is shown on p. 12 in his discussion of the condition of the Egyptians under the early Ptolemies. He rightly points out that the Egyptians were submissive and needed 'a stimulus to resuscitate their long-lost self-confidence,' a stimulus which the Battle of Raphia in 217 supplied, but he contradicts the implications of this statement and falls into definite error when he says that one of the effects of Raphia was the 'spasmodic continuation of native revolts after 216,' whereas the *first* of the native revolts only broke out in 216 *after* Raphia and doubtless as a reaction to the success of the native Egyptian troops in that battle, and these

revolts and internal troubles continued almost incessantly until 85 B.C. and the savage crushing of Thebes by Ptolemy VIII.

While admitting, however, that neither classical nor Egyptian art had any great, direct effect on the other, is it not possible that each affected the other in a more subtle way than Dr. Noshy has perhaps visualised? Is it not remarkable that two peoples should have lived together so closely for the best part of 300 years and yet have kept their peculiar and individual artistic traditions comparatively intact and unmixed? May not Greek art in Egypt have remained purely Greek just because Egyptian influence was so strong, and the Greeks felt themselves strangers in a strange land and compelled, for their very lives, to preserve and maintain what was peculiarly Greek? And may not the Egyptians, suffering from acute inferiority complex under a foreign domination, have maintained, nay, even exaggerated, all that was typically Egyptian? Signs are not wanting that some such considerations did influence the Egyptians, such as, possibly, the extreme form which animal worship assumed, or the curse against foreigners in *Pap. Bremner Rhind*, Colophon, 11.33-38: 'As to any one of any country, of Ethiopia, Kush or Syria who shall displace this book or who shall remove it from me, they shall not be buried . . . their names shall not be remembered in the entire earth, and they shall not see the rays of the sun.' So, too, in the tomb of Petosiris it is very significant that the classical elements are to be seen only in some of the secular scenes; the more important, religious, typical Egyptian scenes are in pure Egyptian style.

Finally, in discussing the 'Third Stage' of Egyptian unmixed sculpture (p. 118), the reasons for the decay which set in after the last decades of the second century are said to be 'internal strife and turmoil as well as the weakening of the national spirit.' It is undeniable that these were some of the causes of the decay, but were they the only ones, or even the chief ones? After all, internal strife had been common in Egypt for many years before the end of the second century, and, if the evidence of Edfu is to be believed, the art was really very little affected by it. It is true that the building of the temple was occasionally suspended for longer or shorter periods (*e.g.* Chassinat, *Le Temple d'Edfou*, iv, 8, 2-4), but, as a general rule, the work for a long time continued steadily and with little, if any, visible degradation of style or excellence. What is noticeable at Edfu is a very clear decay in the very last stages of the work in the first century B.C. This decay is quite sudden and affects both the inscriptions and the reliefs, and it is to be noted that it occurs approximately at the moment when the building of the temple of Dendera was commenced. The facts seem to be that for most of the Ptolemaic Period the temple of Edfu was the sole major Egyptian work in progress, but that at the end building activity extended over the whole of Egypt. Competent craftsmen were relatively rare, and when they were taken from Edfu and scattered among the new enterprises

the technical excellence of the work at Edfu fell sharply and the new undertakings were carried on at a lower level of achievement than that hitherto seen at Edfu. In other words, over-building strained the artistic resources of the country; a few master-craftsmen, instead of being concentrated on one piece of work, were scattered over Egypt together with the host of additional, more or less untrained men demanded by the wider building activities, and the general level of the art fell immediately and never recovered.

H. W. FAIRMAN.

Die ägyptischen Listen palästinensischer und syrischer Ortsnamen, in Umschrift und mit historisch-archäologischem Kommentar. By D.Dr. ANTON JIRKU. (Klio, Beiheft XXXVIII, Neue Folge, Heft 25.) $9\frac{3}{4} \times 6\frac{1}{2}$; pp. iv+62; 1 Plate. Leipzig: Dieterich'sche Verlagsbuchhandlung, 1937. 4 marks.

Egyptian kings of the XVIIIth, XIXth and XXth dynasties have bequeathed long lists of the settlements conquered by them. These lists occur not only in the royal annals but also in inscriptions on temple walls and the bases of statues. Those relating to Palestine and Syria are here collected and throw much useful light on the history and geography of these areas between the sixteenth and the twelfth centuries B.C. The lists from this period number twenty-four in all, and from a later date come isolated lists of Šošenk I (tenth century) and Taharka (seventh century).

Jirku has performed a valuable service by bringing together and uniformly transcribing all these lists, which he arranges in approximately chronological order. Opposite each occurrence of a name he gives cross-references to the occurrences in the other lists, and in a series of footnotes he discusses, with citation of the relevant literature, the identification of most of the sites, adding, wherever possible, short historical and archaeological notes. In transcribing the names the author omits the system of vowel-notation adopted by the Egyptian scribes, since, in the present state of our knowledge, its usage is misleading and confusing.

Two significant features emerge from the lists: first, the absence of place-names from the hill country of Palestine and the southern Jordan valley; and, second, the numerical abundance of the names, indicating a close settlement of the plains and coastal regions from the sixteenth century onwards.

A useful alphabetical index gives the Egyptian forms of the place-names, with a special section for those whose beginning is damaged. Another gives the Hebrew, cuneiform and modern names with which identifications are proposed. Students of ancient history and of the Old Testament will find this a valuable book of reference.

CECIL J. MULLO WEIR.

La septième campagne de fouilles à Ras Shamra (Ugarit). (Printemps 1935.) Rapport sommaire. By CLAUDE F.-A. SCHAEFFER, CH. VIROLLEAUD and R. DUSSAUD. (Extrait de la Revue *Syria*, 1935 et 1936.) 11 $\frac{1}{4}$ ×9; pp. 130; Plates 16; Figs. 28. Paris: Librairie Orientaliste Paul Geuthner, 1936.

Students of the Ras Shamra discoveries will be grateful to the editors of this volume for collecting together under one cover six articles reprinted from the 1935 and 1936 volumes of *Syria*.

The first article is Dr. Schaeffer's report of the spring excavations of 1935 and includes a discussion of the architecture of several houses and tombs and a description of numerous small objects, such as vases, bronze weapons, divine statuettes and cylinder seals. Noticeable among these are a limestone stele, fragments of the model of a chariot drawn by a horse and a standing image of Baal. The text is illustrated by numerous plates and figures.

The three articles by M. Virolleaud give the text, with transcription, translation and notes, of three fragmentary mythical poems, viz.: 'Anat and the Heifer,' 'The Hunts of Baal' and a 'Hymn to the God Nikal and the Kôšarôt Goddesses.'

The two concluding articles are discussions by M. Dussaud based on Ras Shamra poems. The former treats of 'The Commerce of the Ancient Phoenicians in the light of "The Poem of the Gracious and Beauteous Gods,"' the author distinguishing two historic periods of such commerce: the earlier caravan traffic between the Red Sea and the Mediterranean and the later sea-borne traffic along the Syrian coast. The Phoenicians, he points out, were not the first to sail on the Mediterranean, and their earliest ships, which were heavy transport boats with sails, may have been based on Cypriote types. In discussing the early *habitat* of the Phoenicians around Ashdod and Beersheba he makes the exceedingly improbable suggestion that a legend of the rising from the sea of the isthmus of Suez may be the prototype of the story of the Israelite crossing of the 'Red Sea.'

In the second article, 'Canaanite Cults at the Sources of the Jordan,' M. Dussaud examines the evidence for a Phoenician cult of 'Aliyan-Baal in these regions and connects this with the image-worship of the Danites, the bull-worship of Jeroboam I and the later worship of the god Pan at Banias.

The contents of the volume are somewhat miscellaneous in character, the pages are not consecutively numbered and there are no indexes, but the work will be found a boon to scholars who have not convenient access to the volumes of *Syria*.

CECIL J. MULLO WEIR.

Les Découvertes de Ras Shamra (Ugarit) et l'Ancien Testament. By RENÉ DUSSAUD. $7\frac{1}{2} \times 9\frac{3}{4}$; pp. 129; Figs. 23. Paris: Librairie Orientaliste Paul Geuthner, 1937. 30 francs.

The rapidly advancing investigation of the Ras Shamra texts and their important results for our knowledge of the early history of Palestine render this fresh treatment by a distinguished archaeologist very acceptable. The work is not, however, a comprehensive treatment of the Ras Shamra material bearing on the Old Testament. The writer rather selects such points as throw light upon Palestinian and Phoenician history in the Second Millennium, and in doing so he arrives at several hitherto unorthodox conclusions.

He considers (p. 23) that the influence of Phoenicia upon Mycenaean culture was due not to Phœnician traders but to the settlement of Aegean populations on the Phœnician coast. Israel he affirms to have been settled among the Canaanites in South Palestine early in the Second Millennium, and to have shared their culture and worship down to the time of Moses. He stresses the high ethical level of the pre-Mosaic Canaanites, but is certainly exaggerating when he compares this with the outlook of Deuteronomy. His characterisation of the Hyksos as a Canaanite-Israelite group is also surely at fault, as there is sound evidence that the Hyksos were not purely—perhaps not even mainly—of Semitic extraction. Dussaud also simplifies too much when he rejects the Babylonian connexion of Abraham and the Hebrews as a pure invention intended to explain the worship of the Sumerian lunar deity in South Palestine. The Israelites were a very mixed race and one cannot so hastily discard the abundant Biblical and extra-Biblical evidence for an influx of 'Hebrews' from a Mesopotamian or even Babylonian place of origin. Dussaud's reconstruction of history is, however, very suggestive and helpful and deserves careful study. It is interesting to notice that he has perhaps found evidence (p. 106) for differentiating between Hurrians and Horites.

The 'Wellhausen school' of Biblical higher critics is taken to task by the writer, who maintains that the Israelite accounts of the patriarchal period must be based on a continuous written narrative of their times, dating before the monarchical period, on account of their agreement with the evidence from Ras Shamra. But, on his own showing, their agreement is infinitesimal compared with their disagreement and is much more easily explained by vague recollections preserved in oral form over a long interval of time. There is, moreover, a world of difference in form, content and outlook between the liturgical poems of Ras Shamra and a continuous biographical narrative, extending over generations, such as we find in the book of Genesis.

Dussaud's book is, however, not merely argumentative. He gives a succinct account of the history of the excavations, the stratification and chronology of the site and the racial composition and chief occupa-

tions of the inhabitants at different periods. The Phoenicians seem to have settled at Ras Shamra about 2500 B.C., when for the first time they began to build trading cities on the Phoenician coast. The texts, on the other hand, date from the fourteenth century B.C. In a chapter on Phoenician art, Dussaud demonstrates the influence of surrounding cultures, especially of Egyptian in the earlier period and of Mycenaean and Cypriote in the later period, and he gives a description of temples and other buildings of the fourteenth century. After a short sketch of the alphabet and orthography, with some grammatical notes, he discusses the original home of the Phoenicians and then provides a brief account of the pantheon and myths, especially the Keret myth, closing with an exposition of several points bearing on the Old Testament.

The book is discursive and popular in style, but full references are given to more detailed discussions in other works. Excellent indexes of proper names and Biblical texts, together with numerous well-chosen illustrations, add to the usefulness of the book, which is a most practical and convenient handbook to the new discoveries.

CECIL J. MULLO WEIR.

Vassal-Queens and some Contemporary Women in the Roman Empire.

By GRACE HARRIET MACURDY, Ph.D. The Johns Hopkins University Studies in Archaeology, No. 22. Baltimore: The Johns Hopkins Press, 1937. Oxford: Humphrey Milford. 14s.

This book is a disappointment. Yet it is not the author's fault, unless it be for choosing a title that holds forth a promise of romance which the scanty material to her hand cannot implement. Most of her subjects, as she says, 'had no chance to make a stir in the Mediterranean world, and their achievements find no echo except in some casual mention in the pages of Tacitus, Strabo or Cassius Dio.' Thus, since the women in question are most of them only names, the book is bound to make rather heavy reading.

The subjects dealt with are Some Roman Contemporaries; 'Friends' and 'Friends and Allies' of the Roman People, Queen Teuta; Vassal Queens in Bithynia, Bosphorus, Pontus and Thrace; the Wives of Juba of Mauretania; Royal Women in Judaea; Queens in Commagene; Two Queens in Britain in the First Century A.D.; and Zenobia.

By far the most interesting chapter is that on the Royal Women of Judaea. Yet admirers of Racine, Wilde, or even Stephen Phillips would perhaps be ill-advised to turn to it. Mariamne fares the best. Berenice's adventure with Titus sinks to what was perhaps its true level in both their lives; and Salome was married twice, we read, and even attained the glory of having her face—middle-aged—set upon a coin!

J. P. DROOP.

A Study of the Greek Love-Names, including a Discussion of Paederasty and a Prosopographia. By DAVID M. ROBINSON, Ph.D., Litt.D., and EDWARD J. FLUCK, Ph.D. The Johns Hopkins University Studies in Archaeology, No. 23. Baltimore: The Johns Hopkins Press, 1937. Oxford: Humphrey Milford. 14s.

A great deal of work has been put into this book, and the authors have probably said all that can usefully be said about Greek 'Love-Names.' Chapter I contains an account of the *Kalos* inscriptions on vases, their position, significance, and value to archaeology. Chapter II covers the lexicography of *Kalos* especially where it relates to the vases in helping to interpret and understand the conditions which led to the use of the inscription on those vases. From this point onward the monograph lists and tries to suggest identifications, wherever possible, for all names found in connection with *Kalos*. Yet it is doubtful if all the evidence they have collected can provide a really satisfying explanation for every case.

We may believe that 'in the case of a vase with a popular name like Leagros or Glaukos or Memnon it is probable that the vase painters simply added the inscription themselves to the vase before its firing, knowing full well that the name of so popular a character about the city would make a "best seller" out of the vase. In the case of less renowned persons we can assume that a vase with an inscription praising their beauty was made at the express order of a client.' But *ho pais Kalos* without a name remains unexplained. We may say, indeed, that it reflects a social custom and illustrates a natural—or unnatural—tendency, and that it may perhaps be paralleled to-day by the photograph of a pretty girl on a cigarette advertisement or on a box of chocolates.

Yet this does not satisfy and we feel that the potter must have had a more definite incentive, now lost to us.

In the discussion of this social custom in Chapter II, 'Love-names in Greek Literature,' and the changes that came to pass towards the end of the fifth century (though the disappearance of the love inscriptions from vases may need no further explanation than the rapid decay of the vase industry), the noble picture drawn by Plato is contrasted with that shown by the criticisms of Aristophanes, and the argument seems to rest on the assumption that the state of affairs shown by Plato came before, and was superseded by, that shown by Aristophanes.

But can it be correct to assume that what Plato thought and wrote about this subject applied only to the period in which he set his dialogues—the lifetime of Socrates—and not to the period during which they were written?

J. P. DROOP.

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The issue of Dr. Felix Oswald's illustrated INDEX OF FIGURE TYPES ON
 TERRA SIGILLATA (SAMIAN WARE) is completed with this Volume. Parts I
 and II accompanied Vol. XXIII.

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